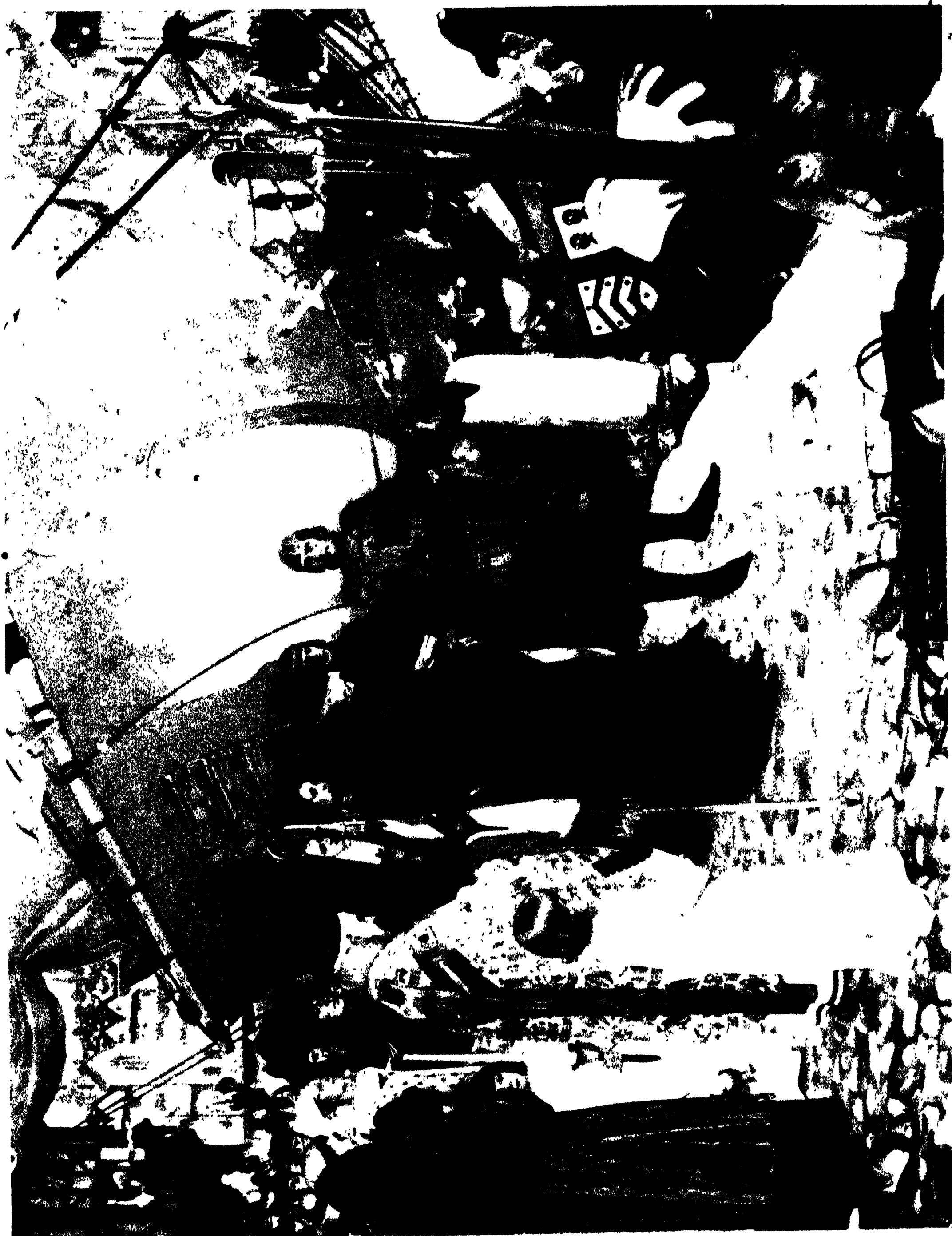
MODERN BUSINESS PRACTICE



MODERN BUSINESS PRACTICE

A COMPREHENSIVE PRACTICAL GUIDE AND WORK OF REFERENCE FOR OFFICE WAREHOUSE EXCHANGE AND MARKET

Prepared by many Specialists under the Editorship of

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FOREWORD.

SUCCESS IN A MANUFACTURING BUSINESS

By Sir THOMAS PINK

(Of Messrs. E. & T. Pink)

No business man of to-day can shut his eyes to opportunity. What I mean is, that never in the history of manufacture has it been truer that the battle is to the strong, and success to those firms that are really alive to everything that can be pressed into their service. We live in days of keen competition, and if we are to hold our own we must seize every opening. The latter may be along lines hitherto despised or but little used; nevertheless, if we are to command success, such avenues to achievement must be traversed. Time was when a firm once established ran itself, content to proceed along the well-worn ruts; new ideas and fresh schemes were looked upon with suspicion. To-day the rule-of-thumb worker is being superseded by the keenly alert employee, and employers are welcoming those qualities in their employees. Not every representative of the latter can become a manager, but all can aim at better workmanship, and the wise employer of labour knows better than to stifle such enterprise. This, then, in the first place, is my interpretation of modern business trend—greater opportunity all round.

Now, success in business or any walk of life is governed by a number of well-defined principles. To some men it comes sooner rather than later; and, very important, often no two successful men agree in all essentials as to their secrets of success. But most will agree, I do not doubt, that success is not to be obtained haphazardly. You cannot ignore the great factor of experience. If the way to wisdom is through knowledge, it is equally true that no success comes without experience. The greater the experience the greater are the chances of accomplishing success, into whatever line of business a man puts his whole mind and energies. My belief is that many promising younger men fail to achieve success in anything simply because they are too sanguine. They refuse to begin at the beginning. They want to drive the engine before they have mastered its mechanism. Thinking they know already, they despise the advice of their seniors, and want to do those tasks which older men have taken hard years of toil and patience to master. At twenty many young fellows feel confident that they know as much regarding the working of their individual business as the men who have been at it since before they were born. They fail to profit by experience.

If I may be permitted to strike a more personal note, I would say that in the business of E. & T. Pink, which was started by my father in a comparatively humble way, now giving employment to nearly fifteen hundred persons, we have laid down one standing principle and strenuously followed it, viz. to give the best and nothing but the best. To do this has cost many an anxious moment, and to-day we are as alive to new and up-to-date methods as ever. In a great factory for making jams and marmalade you have to utilize the very best machinery and the most economical. You have to give the best possible result at a minimum cost for manufacture. Hence, to maintain a well-established position you have to be keenly on the alert for newer and more improved methods. Machines and pans must be the best; out-of-date plant is useless.

In a business like ours, the utmost possible scope is given for an ambitious young man. He may realize that a certain type of machine is capable of being improved, to give better workmanship and effect a saving in its working. Or he may suggest a more effective method of doing half a dozen other processes. That is the type of man who is bound to succeed.

In dealing with a large manufacturing business, one cannot but advise a thorough all-round experience. Starting in the mixing room, proceeding to the machinery department, then to the finishing stages, the young worker will grasp every detail of the work. He will learn something in every department, and indeed gain an insight into the business from top to bottom. Another less enterprising man is content to jog along all his days, performing his mechanical duties year in and year out.

I would even advocate that a well-educated young fellow who was joining a big manufactory, whether it made jam, candles, or whatever commodity you like, should start at the beginning. Let him don overalls and actually work in each department. The knowledge is never wasted. In after days his success in the counting-house, or at the manager's desk, will depend largely on his knowledge of detail, which can only be obtained in the way I have indicated. Of course a large factory is highly organized, each compartment water-tight, with competent men at the head of each, the whole working together with the smoothness and regularity of a clock. But I am sure that in these keen competitive days the future success of all such firms will depend on the thorough knowledge of the business as a whole possessed by the men who are in responsible positions. And there is but one way to such knowledge—to begin at the beginning.

I have not yet touched on the money aspect of business. What I would say must be prefaced by a word of caution often sorely needed. Money alone will never make success in business. Of that young men should be thoroughly convinced. How often one hears the remark: "Oh, so-and-so will get on, *he's got money!*" Money is like a labourer's spade. Of itself it can do nothing. But with it the labourer can dig trenches. According as he uses the spade with determination, perseverance, and wisdom, so will the size and appearance of his trench correspond with his spade: the unskilled labourer makes an unsatisfactory trench. A William Whiteley built up a great concern starting

with a small capital. Other men start off with ten times as much and do nothing. It is all a question of how you use the spade. Money is not an end, but a means to an end; it's the material from which you create your plans on which the superstructure of success is to rest.

Another important defect in young men is a want of knowledge of the proper value of money. I would have every young man learn to value money, not squander it foolishly. It is the smallness of your wants that increases your capital. If you can manage to do without the luxuries of life while you are young, you will better enjoy them in later life. While not advocating niggardliness, a thing to be deplored in the young, one must admit that too few business men at the outset of their career systematically put by a certain sum each year, however small, for the rainy day. Every young man who aims at becoming a success should save a proportion of his yearly earnings. After the first £100 has been saved, the second £100 comes easier, and so on to £1000. With this latter sum the shrewd man who is careful should be in a position to start on his own; and no matter how keen the competition is, especially in these days when the tendency is for the small shopkeeper to be ousted by the large concern, there is always room for the man who gives good value, is straightforward in all his actions, and gains the respect of his customers. From being the proprietor of one small shop the man we have in mind will proceed steadily but surely to the possession of others.

These outlines are suggested with a view to helping young men. The way will not always turn out exactly as one has stated. In some cases the success will come earlier than in others, but in every instance it will be found that the qualities making for prosperity in business are the same. Seize the opportunity, profit by experience, master every detail, be careful and saving, and you need have no fear of the result.

PART IV.

FINANCE

(Continued)

CHAPTER IV

THE MONEY MARKET

What the Money Market is—The Bank Rate—Gold Reserves—How the Bank Rate Fluctuates—The Banks or "Lombard Street"—Bill-brokers and Discount-houses—A Money Market Report—Technical Terms—Conclusion.

WHAT THE MONEY MARKET IS

It is evident that what we want first is to understand what is meant by a "money market". So many fail to understand their newspaper report of the "money market" because there is such ambiguity to them in the use of the term "money". We all know money in the sense of pounds, shillings, and pence when we have them in coin, or notes, or even cheques, but that is not the sense in which "money" is used when we speak of the market. In that connexion what we mean is the loan of money and the market where money may be had on loan. So when we speak of the money market, or the price of money, it should be made clear that we do not refer to coins, notes, or cheques specifically, but to the terms on which loans of money can be got, and, in the newspaper, to those terms of the day before, and the prospect in the immediate future for similar loans. An effort must be made by the ordinary reader to get hold of this technical sense in which a "city editor" speaks of money. It is probable some men still speak of the nonsense of referring to the price of money, for a sovereign is a sovereign and a shilling is a shilling at all times! He would be right in what he asserts; but suppose he wanted the loan of many sovereigns and of many more shillings, he would soon see from day to day that it is worth asking the price of money, for he would find that it varied from time to time. There is the further ambiguity that when we speak of the price of money we do not use it in the same sense as when we speak of the price of an umbrella. The price of an umbrella is the money paid for the article; the price of money is the money which you promise to pay for the loan or temporary use of it. The market of anything is the place at which you can buy it; the money market is the place at which you can *borrow* money.

It follows that the dealing in or buying of money differs from the buying and selling of other commodities. You do not exchange a sovereign for a sovereign or a shilling for a shilling. You borrow or lend money. The sharp schoolboy with commercial instincts is well known, and how he lends ten shillings to another boy for the promise to return him fifteen shillings at the end of the term. That sharp turn is a true representation of what goes on in the "City" of London and other centres where the money markets of the world are found. A money market, therefore, is a place where ready money is exchanged for more money some day. The difference between the sum lent and the sum to be paid back is the rate of interest; and it is just as well that this rate of interest should not be confusingly regarded as the price of money. The rate of interest on £100, at 3 per cent, say, enables a borrower to draw £100, but at the end of a year he has to pay £103. That is the simplest form of the matter, but in practice payments have to be made at intervals of varying length, some short and some long. We see, then, that time is a most important element in the transactions of the money market, and shows how such a market is necessary. If we could exchange money for other money at once no such market would exist; but a borrower hopes to make a profitable use of the money he borrows, and by his earnings to make more than he has to pay for the money. This money market also, in addition to the deferred pay for loans, is engaged in exchanging

money with other places. In other words, the money market comprises an exchange. Some tradesman wants to pay a manufacturer at a distance, and he gets a money order from the post office; he is conducting an exchange. Hence, also, the system of agents, whether at home or abroad, by means of whom you can pay any demand upon you at a distant centre for a small sum given for the service. You may go for a draft to a banker, or for a money order to the Post Office, which enables you to exchange money at a distance with a creditor. The buying and selling of everyday knowledge shows money being used. So does money lent or borrowed, such as the British Government raising a loan and paying for it by means of interest at so much per cent. Again, you may exchange money at a distance or in a far country, as may be seen at home, or you may enter into a business where you may have to exchange sovereigns for yens in Japan. There is always money in every transaction. There is cash down, as we say, or the promise to pay a loan, or some security for it; or a right to cash on a draft or some instrument at another place. Of course in this connexion it is necessary to draw attention to the extended sense of money in such a use. Thus money is made to include all kinds of security for indebtedness. These terms, money and the like, are not difficult of apprehension as used in the money market, but many people fall into serious mistakes, and suffer loss, because they have not paid any attention to the wide meaning of these terms in commercial circles. Particularly is it necessary to apprehend the distinction between coined money and money as used to denote the accommodation to be had in other ways on the money market.

The Bank of England and the Weekly Statement

The weekly statement of the Bank of England, issued every Thursday, is regarded as the barometer of the money market in London, as it shows the condition of that market, and is looked for with great eagerness by all who have financial dealings in the city, such as merchants, bankers, brokers, and the like. Here is the statement for the week ending Wednesday, of August 16th, 1911.

Bank of England

Issue Department

Notes issued	£57,445,315	Government Debt	£11,015,100
		Other Securities	7,434,900
		Gold Coin and Bullion	38,995,315
		Silver Bullion	—
	£57,445,315		£57,445,315

(Signed) Dated the 17th day of August, 1911,
J. G. Nairne, Chief Cashier.

Banking Department

Proprietors' Capital	£14,553,000	Government Securities	£14,967,286
Rest	3,484,569	Other Securities	25,626,161
Public Deposits (including Exchequer, Savings Banks, Commissioners of National Debt, and Dividend Accounts)	7,820,292	Notes	27,520,945
Other Deposits	43,313,347	Gold and Silver Coin	1,088,327
Seven Day and other Bills	31,511		
	£69,202,719		£69,202,719

That statement requires some unravelling to make it intelligible to people who are not in the habit of dealing with it regularly. The return is made in accordance with the Bank Charter Act, or the Bank Act as it is called, passed by Sir Robert Peel in 1844. That Act requires the proprietors and directors of the Bank to establish and maintain a separate department for the issue of promissory notes payable on demand, which is to be called the "Issue Department", and is to be kept separate from the "Banking Department". To that issue department the Bank is to transfer £14,000,000 of securities, including debt due from the public to the Bank and also coin and bullion not required for the banking department, and to deliver out of the issue department notes equal in value to the securities, coin, and bullion in the department. Hence the notes issued in the above statement are equal to the securities and bullion deposited, and the Act deems the notes in circulation to be issued on the credit of the securities, the coin, and the bullion. (Note that part of the

securities are only Government debt.) The securities may be varied in amount with the £14,000,000. The Bank must not issue notes except for notes, securities, or for bullion. The amount of silver bullion held must not be more than one-fourth of the gold coin and bullion held in the department, but all people may demand notes for gold bullion, and the Bank, on the other hand, may demand that the bullion should be assayed. When any other bank ceases to issue notes, "the Bank" may be authorized to increase its securities and issue additional notes, but not to more than two-thirds of the issue which is about to cease. The account of these issues must be published weekly. The Bank is exempted from stamp duty and composition for duty on its notes (but, as we have seen, over £11,000,000 of its notes are Government promissory notes). When the issues exceed the £14,000,000, the Bank is to allow the public the profit of the circulation above that amount of issue, less expenses; but no banker not issuing notes on 6 May, 1844, may issue any notes, and bankers hereafter ceasing to issue may not resume. The average issues of all issuing bankers are published every week in the *London Gazette*. The name of every banker carrying on business has to be returned to Somerset House within the first fifteen days of every year. The result is that but few banks now issue notes, and every year sees notes more exclusively a privilege of the Bank of England. Hence the interest attaching to the weekly statement of the Bank of England, which is the reserve upon which all our credit establishments draw, and conditions what is known as the money market. It is, therefore, necessary to possess some apprehension of the meaning of that weekly statement.

Only a general indication of the meaning can be expected, for only those who are at the Bank are in a position to say what those figures really mean. Some would abolish the distinction between the "issue" and the "banking" sides of the Bank; but that, at any rate, would render valueless the records of nearly seventy years, which afford a valuable comparison. To find the Bank's note circulation, for instance, it is necessary to subtract the notes in the banking department from the total said to be issued, and we then find the amount circulating in notes at home and abroad or held by other banks among their "cash". On the right-hand side of the figures for the "issue" department it has been said already that the first item represents nothing more than the credit of the National Government; and this item is regarded by many as affording a means of securing larger gold reserves, which they deem very desirable as security for our credit system. The "Other Securities", too, consist of Government Stocks. These two amounts, about 18½ millions in total, represent the £14,000,000 authorized by the Act for this department and the two-thirds of the notes which private banks have ceased to issue. Beyond this amount every note issued must have a bullion basis, and the practice is invariable to issue on gold only. (This fact proves a sore temptation to bimetallists every now and then.) On the Banking side of the weekly sheet the proprietors' capital represents the amount subscribed by the stockholders, with additions. It is fully paid up. Under the quaint term "Rest" the Bank holds what is a reserve. It is profit which has not been distributed. It fluctuates, and probably it contains the Bank's profit and-loss balance. At the end of February and August it is usual to see large amounts added to the "Rest" as if required to pay dividend on shares after the Bank's half-year, for then the Bank's Court meets for the "making of a dividend". The "Rest" is never allowed to fall below £3,000,000. In 1869 the "Rest" was a little over £3,000,000, and "Other Deposits" over £18,000,000. In the above statement for 16 August, 1911, the "Rest" is £3·4 millions, and the "Other Deposits" are over £43,000,000. The "Public Deposits" item represents the balances of the various departments of the Government, which the Bank holds as their banker. These "Public Deposits" vary in amount, of course, according to the flow of the revenue, and every quarter a portion of the amount is transferred to "Other Deposits" to pay dividends on Consols and other Government Stocks. This item, it should be observed, is closely connected with ease or tightness, as the case may be, in the money market at intervals, for when Government dividends are paid money is abundant and banks can say that there is "cash in hand and at the Bank of England", or, on the contrary, the payment of income-tax or house duty makes the "Public Deposits" to swell, and money becomes scarce and tight. "Public Deposits" on the increase mean power to the Bank, while "Other Deposits" increasing makes the Bank liable, and gives more room for credits at an easy rate. The perennial question of the reserve is wrapped in this matter. and the payment of taxes in large masses into the Bank gives the Bank a chance to strengthen its reserve for the coming half-year. The phrase "Other Deposits" in the Banking Department liabilities includes all deposits from all sources except the Government. It includes the deposits, that is to say the reserves of the other banks, and therefore has the secret of the money market locked up in it. As these deposits rise or fall the position of these banks and the terms for loans are affected. The belief has been

expressed that the bankers' deposits amount to about £23,000,000. The rest of the £43,000,000 (see p. 4) is made up of amounts due to governments, to municipalities, and to private customers. The Bank return, it will be felt, appears full, but really leaves the reader questioning the meaning of the items because no details are afforded to him. When it is seen that the Bank of England could not be expected to disclose the amount, say, of private customers' balances, this demand for details will not be pressed. What the volume of bankers' balances is in relation to the Bank's own reserve, for instance, is a moot point; but it is not clear that it should be made known only tha brokers should be able to get loans at certain tight times more easily.

On the assets side of the Banking Department (p. 4) the item Government Securities means British Government, and consists of Consols and other Stocks, Treasury Bills, Exchequer Bonds, and other methods of financing the Government, and any loans which the Government may have required for the Treasury for "Ways and Means" purposes. The weekly return of the revenue and expenditure will indicate what these are should a reader desire to follow up this item, and will be found in the *London Gazette*. The rise of this item in the statement may mean either that the Bank has been buying Consols or making advances to the Government, and the contrary may mean a reversal of such action in some form. What has been said now includes a virtual explanation of the "Other Securities", which mean all advances to borrowers, private customers, or brokers of all kinds, governments, municipalities, and what not—all except those to the British Government. The whole world would welcome a more detailed statement of the meaning and composition of this asset—the "Other Securities"—especially a separation of the loans, discounts, and investments which are massed into a single total. This glance at the weekly balance-sheet of the Bank leaves us quite on the outside of things after all, and all that we can be sure of is that an increase in securities will increase the supply of money, and a decrease will contract it. The last two items in the statement constitute the "reserve of the Bank of England". That reserve, let it be remarked, is not profits retained, but a holding of cash in the lockers of the bank. As may be seen, it is chiefly in the form of notes—the Bank is ever issuing notes against bullion and gold. Here we must puzzle a little as between the "issue" and the "banking" departments, and learn to regard these "reserve" notes as certificates for the gold in the issue department. One of the chief facts which emerge is the economy in the use of metal, notes being substituted for gold in both the issue and the banking. The relation between the Bank's notes and the rest of the securities and assets generally is important as illustrating how our system of credit is sustained. The chief care of the Bank is to maintain its reserve, for it is ever liable to a demand for gold from home or abroad. It is necessary, therefore, to consider what is meant by the Bank Rate.

THE BANK RATE

The Bank Rate is the *minimum* rate at which the Bank of England will discount bills. There is a market rate from which it should be carefully distinguished. The Bank Rate is usually higher than the market rate, and for one reason, because it is fixed, being announced every Thursday morning after a meeting of the Bank Court. It should be observed that it is a *minimum* rate, though it is not infrequently the actual rate. Sometimes a great many bills may be presented for discount, and the Bank will refuse to do so except at higher rates than the official one, and then probably that higher rate becomes the official figure for the following week. It should be remembered, also, that the Bank charges ½ per cent more for loans and advances than for discounted bills. The Bank Rate is said to be *effective* when it regulates the price of money—i.e. the price at which loans of money may be had in London—when it is discounting bills at the official rate or a figure above it. This does not mean that the official rate prevails in all the transactions of the Bank, which has private customers, and affords them money for short loans at market rates, much to the disgust of other banks and competitors. This rivalry needs only to be mentioned here.

The Bank Rate is frequently *ineffective*: the competition with other banks implies this. There is, too, the difference between the market rate and the Bank Rate. Practically the market rate is fixed by the higgling of the market, the other banks competing for business among the brokers and other sellers of bills. The market rate, therefore, depends on the judgment of individuals as to the resources and calls upon the market. This matter introduces us to a great many private considerations, and it is evident that it is little due to the high policy of the good of the monetary world. The operator looks to his own case and interest and not to the question of the reserve of gold,

say, on the London market. In short, every man is doing what business he can in bills, buying and selling, and the whole of the securities on the market, from Consols downwards, are subject to supply and demand on the market. This matter is intimately related to foreign exchanges (see Chapter V of this Part), for when bills are at a low rate we import foreign securities, and the rates of exchange then move toward a point making it better to ship gold than to buy drafts. A London rate is usually lower than that at other places, but the difference between them is sometimes so great that heads are wagged. The brokers go on buying, as adverse exchanges would make them cautious, for they would make buyers to wait for higher rates, while they may profit now. All the while the Bank of England is expected to maintain a reserve which will sustain the credits created by other banks, which often trade with little relation to the Bank Rate. The Bank Court is recruited from the accepting houses and merchant firms, subject to the formal confirmation of the shareholders, and it is a rule that no member of a bank which issues cheques can be made a member of it. An immense amount of credit-making goes on outside the Bank, but it is founded upon the Bank's reserves chiefly, and this is one reason why the Bank Rate is so often ineffective, much more so than it used to be. Often now the Bank borrows money which it does not need, so that the brokers shall not keep the exchanges against us because of low rates, and so a curtailment of money is necessary. The credits are taken off the market, in short, to make the rate more effective. The Bank borrows in this condition, and if anyone in this pass wants a loan, the rate or a little above it has to be paid. The borrowing narrows the basis of credit which the Bank affords, and so the Bank succeeds in protecting the reserve. The interaction of the Bank, the other banks, the brokers, and other dealers in credit may be expressed in several ways, but it takes some form of calling in money, and finally into the Bank, with the result that the terms on which loans can be got are lighter. To observe this matter is to get an insight both into the nature and working of our modern credit system, and without a due appreciation of this it is impossible to understand the delicate movements of the money market. Easy credit follows easy rates; a tightening of credit means an effective rate. Whether this is an illegitimate interference with the law of supply and demand in credit may be left to the partisans of the brokers and the Bank. Differing from some recognized authorities, it may be said that there should be an easily reached limit to this attempt to regulate and to control what may be called, and is deemed to be, an over-production of credit and its instruments. The fact is that in credit circles the Bank note has not retained the importance it had at the passing of the Bank Act in 1844, and the Bank Rate, therefore, is not so effective. Cheques are used so very extensively that the rate, the price of money, is settled largely by the prudence of banks other than the Bank of England.

The Bank of England and the Regulation of Credit

It has been asked, therefore, what are the circumstances in which the Bank of England is able to regulate the supply of credit. First, trade so active that other banks have reached their limit. Second, the payment of taxes sweeping millions into the Bank on account of the Treasury helps to give power to the Bank. Third, when the demand for credit and currency exceeds the outside supply the Bank gets its own price. Fourth, the international market may be so placed that regulation is necessary by borrowing money, which, as we have seen, operates to curtail credit and raise the rate, affecting also the exchanges. These points are evident from the Bank's practice. The Bank, however, it should be observed, is more strong at odd times of crisis than in the ordinary condition of things, for when money is falling the Bank is weak, and its engine is applicable only by the process of borrowing needlessly. Here once again we get back to the question of regulation, for when money is plentiful there is a temptation for bankers and agents to create credits. The monetary crash in the United States in 1907 reminds us of this, for so had credit been inflated that the Bank Rate had to be raised to 7 per cent in order to attract gold, and then it was quickly reduced to as low as 2 per cent—an extreme instance of regulation by this means. The fact is that London becomes thus the distributor of gold to other countries, which comes to London regularly from Australia, South Africa, and other centres of production. It was a crucial instance, that experience of 1907–8, of the importance of maintaining a gold reserve, a maintenance which the Bank shrinks from at its own cost.

GOLD RESERVES

This is a question of constant discussion in money market circles—how to maintain and who should maintain the gold reserve? The Bank Rate and the market rate have but an indirect relation with one another because this reserve is not attended to, even at times of monetary ease. That the Bank Rate does influence the market rate is undoubtedly true, in the sense that it is invariably below it, and sometimes much below. The market rate, in short, is the rate at which the bankers are prepared to lend to the brokers of bills or what not, and they, of course, must be below the Bank Rate, but would like to be able to fix the point not more, say, than 1 per cent below. Here go-as-you-please seems to be the practice, for, having deposits, it is necessary to use them at some rate. And so the vicious circle goes its round, until the Bank intervenes in the market, pulling up the basis of credit and reducing the amount. Bankers and the Bank are constantly seeking an agreement on this matter. The aim is to satisfy demand for credit on the one hand, but the supply is frequently and generally such that no result has been arrived at, and the Bank Rate and the market rate vary without much relation to one another. The question touches much larger issues than those of the purveyors of credit, the mere City interest. The economic position generally is concerned vitally, and it is a question whether any power should be given to the dealers in money (or credit) to make prices firmer and safer to them at the cost, it might prove, of making production and commerce generally more difficult, because more costly. So far as this is a City question it is only a question of how far other banks shall have a voice in fixing the Bank Rate—the rate at which the Bank of England will discount bills.

Several references have been made already to the reserves, by which is meant gold reserves usually in discussing the Bank of England and its peculiar functions in our financial world. Some paragraphs may now be devoted usefully to this question of the reserves, which is the standing subject for discussion among financial magnates and societies. We have seen, in describing the statement of the Bank of England's position, how the issue of notes is largely founded on credit, the credit of the British Government. But our whole monetary system may be regarded as a mechanism of credit; and a wonderful machine it is. Among the magnates and students it is conceded by most that our British system of credit is top-heavy; that is to say, it has a colossal erection of credit on a small reserve of gold. There is no reserve of any kind except that shown in the weekly statement of the Bank of England. It is true that among the securities shown by the Bank's statement there are some millions worth belonging to the various joint-stock banks, but a "gold reserve" is supposed to be something different from that. Such arrangements as ours do work uncommonly well in ordinary times, but there is a widespread feeling that we do not provide enough for those times of emergency which seem unavoidable occasionally, and in which gold is the only form of payment accepted always and everywhere. That is the plain reason why a gold basis for our credit is an essential of a banker's business; and it is admitted that our British institutions and methods provide but a slender reserve of some £7,000,000 to £10,000,000 at best in face of our large commitments and business with the wide world. The problem faces every banker, for he must hold gold sufficient to meet the cheques drawn upon him; and, on the other hand, he does not wish to cripple himself nor the profits of his shareholders, say, by holding too high a proportion of gold. Nor must he hold too little to meet his commitments. And yet is not this constant discussion of the reserve a confession that banks give too much credit on a basis of too little gold?

But the crux of the question is, who is to provide and how to provide this increased gold reserve? All sorts of suggestions have been made, most of them of the character which would make the other man do this. Some would have the Government undertake the task, some say that the Bank of England should, while an increasing opinion is to the effect that as the private banks are the chief creators of credit, they should be willing to increase the gold stock by contracting fewer of the riskier credits. However the task is attempted, it must be realized that contraction of credit is involved, which is the same as saying that the rate of discount will be higher, and credit will cost more. What that will mean in an economic sense ultimately may not be seen clearly, but there is not any reason for thinking that this accumulation of gold would cost very much, nor cause any great amount of inconvenience, especially to the weaker creditors and the worst-managed banks. It is certain that a larger gold reserve is desirable—that is common ground; it is equally obvious that the banks and credit institutions would profit most from the change, and the taxpayer would not allow the Government to charge him with the expense. The change must come from the banks

themselves; but it is obvious that many of them will continue to hesitate to take the plunge because, after all, these risky credits which they take and give are profitable to them, and it may be admitted also in the long run are profitable to the country. One of the measures which would cause the banks to maintain a better reserve of gold would be the requirement that a monthly statement of their position should be compulsory in the case of every bank. Such a law would have obviated the necessity for one or two bank reconstructions which we have witnessed recently.

HOW THE BANK RATE FLUCTUATES

At the risk of repetition, it has been evident that it is necessary, therefore, to review another aspect of the Bank Rate. To a great many people that is a very mysterious thing, and even tradesmen of experience fail to realize that the rate is due to anything beyond the arbitrary action of the Bank Court. The question is connected with that of the gold reserve which has just been briefly reviewed. It should be apprehended better and more directly, however, by asking a question such as, What causes the fluctuations of the Bank Rate? or, How does the Court 'fix' the rate? We have already seen what the Bank Rate is, viz. the minimum at which the Bank of England will discount a bill. Now a bill is like a note, in that it acknowledges a debt and promises to pay. A bank's own note is accepted and cash given for it. A bill, of home or foreign origin, is in a different position in that it depends so much upon the drawer; but on presentation the Bank will accept at a discount. The question is at what rate of discount. And here again two considerations govern the decision. One is that of the drawer and the opinion of the acceptor (in this supposed case the Bank), but that is the minor consideration. A greater matter is the state of the market, and especially the demands upon it. We have seen how necessary it is to watch the reserve with an eye to the demand upon that. It must be in a condition to meet the demand. Now, ever so many folk overlook the fact that money, and money in the widest sense, is a commodity, and subject to the laws of supply and demand. If, therefore, there is a large demand upon the available fund, that fund must be protected, and the City of London has got into the way of protecting it by means of the Bank Rate, though not in that way alone. The Bank Rate does act as the indicator and, as the demand rises, as the regulator of the rate of discount. All the while, and in times of comparative ease alone, the demand and the supply are allowed to decide the terms upon which loans are made and discounts arranged; but trade may become brisk, manufacturers and speculators busy, and money is in request. There is then a call upon the resources of the City, and as the Bank of England is the final reserve in this country, there is need for caution, which is shown by the rise in the Bank Rate some Thursday morning. The fluctuations of the Bank Rate, therefore, act as a warning to the prudent operator, who never forgets that demand curtails supply; but the Bank Rate is an artificial operation anticipating a heavy call upon the available resources, of which the Bank itself is chief custodian. As there are simple people about, it may be added that every person seeking a loan cannot get his bill or acknowledgment discounted. The Bank Rate only means that it is the lowest rate at which the Bank will do business; but every such transaction implies good security, and people who cannot give such a security cannot get it, even if money were at 1 per cent.

At this point it will be of importance to introduce a record of actual transactions, with a comparative basis, from three principal countries of Europe. This is given in the table on the next page, which presents several remarkable points. The first is the comparatively low and remarkably steady character of the Bank Rate in France. The Bank of France is not forced to meet its liabilities in gold. If many payments press him, the governor of the Bank of France can tender payment in silver five-franc pieces, whose bullion value is less than one-half their face value, at which he can, legally, hand them on to creditors That amounts to a repudiation, or a refusal of gold, at convenience. In its dealings with the wider world the Bank of France cannot ignore a debt incurred on a gold basis. The Bank of England and the Imperial Bank of Germany work on that gold basis exclusively, and the table points to two features of the comparison, viz. that the Bank Rate is consistently much higher in Berlin than in London, and that there is a relation between the amount of the Bank Rate and the growing character of the clearings; in other words, that there is a tendency in good trade to drive up the rate of discount, which is only a confirmation of what is arrived at by deduction. It should be observed that the figures given for the Bank Rate in each case are average figures, and, that at the end of 1906 and opening of 1907, they reached much higher ones, in England 6 and 7 per cent.

This subject leads us to consider the relative

THE BANK RATES OF LONDON, PARIS, AND BERLIN

Date.	London.	Country.		Paris.		Berlin.	
	In millions cleared at Clearing House.	(In millions.)	Bank Rate (average).	Bills discounted (in millions)	Bank Rate (average).	Bills discounted (in millions).	Bank Rate (average).
	£	£		francs		marks	
1895	7,593	385·5	2	8,622	2·0	6,233·6	3·14
1896	7,575	464·2	2½	9,925	2·0	7,286·5	3·66
1897	7,491	482·6	2⅝	10,365	2·0	7,681·1	3·81
1898	8,097	507·6	3¼	11,032	3·0	8,443·2	4·27
1899	9,150	571·4	3¾	11,746	3·27	9,308·9	5·04
1900	8,960	633·3	3 15/16	12,248	3·28	9,903·9	5·33
1901	9,561	605·2	3 11/16	9,936	3·0	10,017·9	4·10
1902	10,029	614·9	3⅓	9,556	3·0	8,803·9	3·32
1903	10,120	624·9	3¾	11,685	3·0	9,664·8	3·84
1904	10,564	655·1	3⅓	10,834	3·0	9,610·9	4·22
1905	12,288	665·4	3 1/100	10,968	3·0	9,558·7	3·82
1906	12,711	679·2	4 17/60	13,981	3·0	10,663·1	5·15
1907	12,730	723·3	4 37/40	15,769	3·45	12,315·7	6·03
1908	12,120	651·5	3	12,801	3·04	10,257·5	4 76
1909	13,525	673·6	3 1/10	12,336	3·[illegible]	10,489·9	3·93
1910	14,658	—	3 9/10	—	—	—	

position of leading centres as money markets. Already we have seen by means of the above table something of the relation of Paris and Berlin to London. If Paris has on the whole a lower Bank Rate, that is, as was explained, because the Bank of France is allowed to meet liabilities in silver. That, however, is chiefly operative in internal transactions, and cannot compete where transactions are on a gold basis, as they are in the chief commercial centres of the world. French banks, therefore, while accepting a liability frequently do so by a draft or bill on London, which is the centre of international exchange. Germany has her Imperial Bank, but, as we have seen, the Bank Rate in Berlin is higher constantly than in London, which circumstance alone would tend to send business to a better market, such as London. Germany, too, while it does much foreign business, and though possessed of great and growing means, finds it necessary to employ it largely in internal loans to develop her own industries. So far, therefore, Berlin has not developed into a great centre of international finance. It can issue, through the Imperial Bank, an unlimited supply of notes, that is, of credit, but at 5 per cent on every mark above a prescribed limit. That 5 becomes 5½ or 6 per cent to those who would draw upon German sources, and consequently is not favourable for business. As to New York, the only remaining competing centre, while it may be admitted that the United States are wealthy, the experience of 1907, when the American banking system broke down, shows that much will have to be altered to make New York finance suitable for international requirements. It breaks down in certainty and readiness. Though United States banks have to maintain 25 per cent of their assets in gold, they are, as 1907 proved, not ready to meet a demand on the part of their creditors to pay that out. A draft payable at the convenience of the New York banker, when he has had time to arrange and realize some securities, will not meet the requirements of international finance. Hence the recourse to a draft on London, which is the international bank of commerce and finance, because money, gold or gold's credit, is to be had in London, and to be had without question always. It is money which is always convertible, and the fact that it is usually cheaper than elsewhere combines to make it available and preferred by the user. As to this readiness to do business in money, what has been said of the Bank of England and other banks already of their reserve, of the open market for all good securities, of the almost automatic manner of fixing the price to the demand and supply, will direct the student to the secret. It should be added that this confidence in London, and the habit of transacting such business in London, begets additional business in turn, brings it to London, and we find to-day that many foreign banks have branches in London maintaining a small reserve in this country.

High Rate and Low Rate

Recurring to the table of comparative bank rates, some words may be devoted to the frequently heard phrases, high rates and low rates, always as applied to money, but money, let it be marked, in the wider sense of money's worth or credit—money

as it is understood on the money market. The figures in that table for the various years give us a range of fluctuation which is considerable. They enable us, in an arithmetical sense, to say that money was high or low at such a period or date; but we ought to know more than that, and it is important to make a high Bank Rate or a low Bank Rate mean much more than that to a student of the market. The Bank Rate is an indicator as well as a regulator, as has been said already. All those who follow the market intelligently recognize this, and realize the signs of the times in the prices quoted, the rates charged. Those who have followed this chapter thus far must understand what is meant. When in the late autumn of 1906 and early in 1907 the Bank Rate in London went up to 6 and to 7 per cent, we saw what that high rate meant. Throughout the world, and especially in the United Kingdom, trade was exceedingly buoyant, and naturally involved large and many credit transactions with many parts of the world. The banks were, therefore, sought by all manner of persons requiring monetary aid. In that condition, at the same time, it was well known that in the United States there was a distrust of the methods of many financial institutions, and many of their customers demanded repayment and sought their gold. When this movement was spreading, these institutions, or many of them, combined to decline to pay, and a crisis spread dismay far and near. For our purpose it is clear, therefore, what a high Bank Rate of 6 and 7 per cent in 1906-7 meant. It meant great strain upon the resources of the banks, a demand which pressed heavily upon the supply, and in England, as it is a pride to be able to meet demands immediately, it was necessary both to hold the gold in hand and to attract gold from other centres. The Bank Rate was accordingly raised from 3½ per cent to 6 per cent from July to December in 1906, and from 4 to 7 per cent in 1907. The reader will observe that from the prudential point of the banker it was necessary to do so, and he will also see how this is in accord with the laws of supply and demand. When there is great competition for credits, as with every other commodity that is marketable, the price tends to go up rapidly, and for money as credit, the index of the market is the Bank Rate, which is "high" or "low" as the demand upon the resources of the market may require.

The Money Market and the Stock Exchange

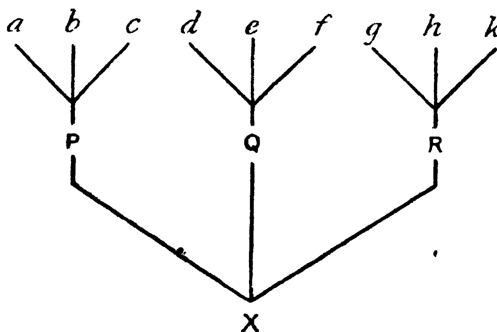
These remarks should be of use to those who would appreciate the prices of stock or prices on the Stock Exchange. That is not a subject which can be pursued at length in this place; but it is an advantage always to study a subject in its relations to kindred subjects. It is obvious that not only is the Bank Rate driven high or low by the laws of supply and demand, and things which influence them, but prices on the Stock Exchange are subject to the same general influences, to similar depressions or inflations, according to the credit and money obtainable from the bankers. The American crash of 1907 could not be, and was not, anything but a calamity to the Stock Exchange. The banks were engaged in saving the balances, and to every borrower the Bank of England was charging at least 7 per cent. At such a rate business was slow and difficult to get. The state of the money market was inimical altogether to credit, which is founded on confidence. We hear so much of Consols and their prices, which must be low at 2½ per cent, but we should recognize more practically that political as well as economic influences bear immediately upon their prices. Any rumour of danger to the Government at home, a spirit of industrial unrest, and pre-eminently any rumour of war, depresses prices. War, for instance, means a demand for ready money, and a transference of it to a new centre, with a dislocation of trade, all tending to lock up credit, which entails a rise in the Bank Rate, with its limitation of credit and contraction of effort and speculation. The result is, perhaps, that bankers will pay 4 per cent for deposits, and then it is vain to expect men to put money in Stocks at 2½ or 3 per cent. In turn, again, the Stock Exchange becomes slack and dull, for the brokers and dealers cannot get money so easily while the Bank Rate is pointing to cloudy weather. (As to the Stock Exchange, see Chapters VI and VII of this Part.)

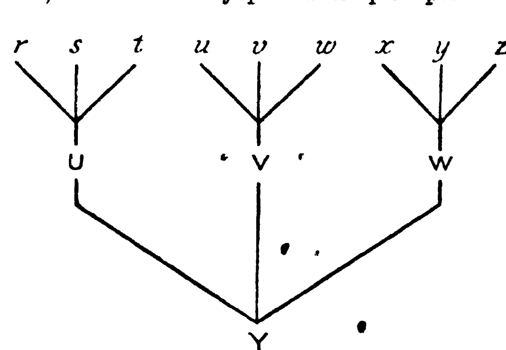
THE BANKS, OR "LOMBARD STREET"

The interdependence of the financial institutions —the Bank, the joint-stock and the private banks, the Stock Exchange with its brokers and dealers—may be deduced easily from what has been said already, and is seen daily by those who observe what goes on in commercial circles. It is exemplified in a most remarkable manner by that quintessence of "Lombard Street", the name which Mr. Bagehot made current some years ago in his famous book describing the money market, viz. the Clearing House of the bankers and their congeners of Lombard Street—the seat of the money changers

in the City of London. This remarkable institution comes down from about 1775, when a few bankers hired a room where their clerks met to exchange notes and bills and to settle their debts with one another. It was quite private then, and business was done secretly. From this modest beginning the Clearing House has expanded into the present body which deals with the colossal totals given in the table of Bank Rates above. From a private club it has become an institution to which all the banks, including the joint-stock banks and even the Bank of England, belong, and the transactions are reported upon, so that they have become of much importance in our statistical work. In this place the working of a Clearing House is of chief interest, and we cannot do better than to quote the late Professor Jevons in his work on "Money" (p. 261), where he gives the following diagram and explanation of the work of clearing:—

"In the following diagram let P, Q, R be country banks having the London agent X, and U, V, W other country banks having the London agent Y. If *a*, a customer of P, wishes to pay *r*, a customer of Y, he transmits by post a cheque upon his





banker P. The receiver, *r*, pays it into his account with U, who, having no direct communication with P, forwards it to Y, who presents to X, who debits it to P and forwards it by the next post. Nothing can exceed the simplicity and perfection of this arrangement. It will be seen readily, too, that sums of money passing between banks, or rather cleared off in Lombard Street Clearing House, will frequently be the balances of extensive running accounts between country banks and their agents and correspondents." The simplicity of the arrangement, of which Jevons wrote in 1875, has proved convenient so that in 1910 no less than £14,658,000,000 was cleared off in the Lombard Street Clearing House alone—a witness of the most impressive kind to a good business method and to the fact that money in the market sense must always be understood as synonymous with credit. (See also Chapter II of this Part.) How little coin passes in these transactions!

The London Clearing Banks

The London banks for clearing purposes are now divided into two classes—viz. the Town and Metropolitan—and cheques drawn on banks in the latter class will be found to have the letter M upon them. Some of the chief banks thus classed are, for "Town":—

Bank of England, Threadneedle Street, E.C. (on charge side only; and drafts on Bank of England, Threadneedle Street, must not be included in Clearing part of remittance).

Barclay & Co., Ltd., 54 Lombard Street, and City branches.

Capital and Counties Bank, Ltd., 39 Threadneedle Street, E.C., and City branches.

Glyn, Mills, Currie, & Co., 67 Lombard Street, E.C.

Lloyds Bank, Ltd., 72 Lombard Street, E.C., and City branches.

London County and Westminster Bank, Ltd., 41 Lothbury, E.C., and City branches.

London and South-Western Bank, Ltd., 170 Fenchurch Street, E.C., and City branches.

London City and Midland Bank, Ltd., 5 Threadneedle Street, E.C., and City branches.

London Joint-Stock Bank, Ltd., 5 Princes Street, E.C., and City branches.

Martin's Bank, Ltd., 68 Lombard Street, E.C.

Metropolitan Bank (of England and Wales), Ltd., 60 Gracechurch Street, E.C.

National Bank, Ltd., 13 Old Broad Street, E.C.

National Provincial Bank of England, Ltd., 112 Bishopsgate Street, E.C., and City branches.

Parr's Bank, Ltd., 4 Bartholomew Lane, E.C., and City branches.

Robarts, Lubbock, & Co., 15 Lombard Street, E.C.

Union of London and Smith's Bank, Ltd., 2 Princes Street, E.C., and City branches.

Williams, Deacon's Bank, Ltd., 20 Birchin Lane, E.C., and City branches.

The banks included in the "Metropolitan" Clearing are:—

Branches not in Town Clearing, except the following:—

Glyn, Mills, Currie, & Co.,
Metropolitan Bank (of England and Wales),
Robarts, Lubbock, & Co.,

which have no Metropolitan branches.

Biggarstaff, W. & J., Smithfield (through Parr's Bank).

Child & Co., Fleet Street (through Bank of England).

Cox, Biddulph, & Co., Charing Cross, S.W. (through Martin's Bank).

Coutts & Co., 440 Strand, W.C. (through Union of London and Smith's Bank).

Cox & Co., Charing Cross, S.W. (through Bank of England).

Hill & Sons, Smithfield, E.C. (through Lloyds Bank).

Hoare's, Fleet Street, E.C. (through Williams, Deacon's Bank).

London and Provincial Bank, Ltd., Metropolitan branches (through Glyn, Mills, Currie, & Co.). Drafts on London and Provincial Bank Head Office, 3 Bank Buildings, Lothbury, E.C., must not be included in this Clearing. Any branches not in the Metropolitan Clearing will have cheques marked C in the left-hand corner.

BILL-BROKERS AND DISCOUNT-HOUSES

Banks, by means of cheques, have been shown to be the chief makers of credit, so giving a client a right to draw upon them, and that is the chief medium for transacting monetary business to-day. As there is a constant tendency to specialize in function, especially when business is on a large scale, it is found that men in the City take up certain forms of financial business, such as bills and discounts. The bill-broker appears to have been originally the medium between the banks and the merchants who wish to dispose of bills. The bill is an instrument which promises to pay a certain sum at a future date, but frequently the holder desires to realize at an earlier date, and sells the bill at a discount. It is found that there are several classes of firms and corporations who cultivate some of these special functions in the money market outside the ordinary banks. First, there is the bill-broker, whose business consists of negotiating bills which he takes from merchants, agents, accepting houses, foreign or colonial banks, who receive them from their correspondents constantly, and sells them for the best price he can get, and receives a commission on the transactions. Another bill-broker may be in the market for himself; that is to say, he is not a mere commission agent, but will buy the bills brought to him outright, and he usually sells them again before maturity to the banks or to any buyers who require securities of the kind. He requires some capital, of course, but not so much, perhaps, as might appear at first sight, and in any case the banks are in the habit of lending money at "short notice" to such men, who are known for their probity and extensive knowledge of the market. The "discount-house" is only a bigger broker, which with large capital and resources deals on a large scale, and has become a very important and influential factor in credit, both internally and internationally. Such houses frequently give higher rates to depositors of money than the banks do, work with a large amount of borrowed money, and so control many market transactions; but of course they in their turn, even the largest, have to guard against the contractions of the market when the banks reduce their loan and the Bank Rate is rising.

The terms in which the bill-broker expresses his prices do sometimes give trouble to people who have not thought of such matters, and in speaking of discounting it may be as well to give a caution. The Stock Exchange, for instance, will speak of a market as firm when there is an advance in price, as when Consols are "firm" the price is going up. But they will also say that bills were firm, and then the very opposite is meant—viz. that their price is showing a downward tendency, as when the discount rate moves, say, from 3 to 3¼ per cent. The owner of the bill in such a case gets a smaller amount of ready money for his bill. The bill-broker or discount-house has an eye ever fixed upon the Bank of England, from which he may have to get a short loan while he is getting his purchases of bills on the market, in which process, of course, he looks for a profit between the rates of purchase and sale. How many things there are which influence the field in which the broker operates! He must know something of human nature; he must keep himself in touch with men's efforts and prejudices, maintain a good working acquaintance with movements of the public mind and with political movements at home and abroad in especial; and as he is particularly interested in the matter of time, and even working within so many days frequently, the weather may prove to be an element of much importance. It is clear, therefore, that a broker or a manager of a discount-house should be a person who is alert and endowed with an imagination governed by a strong intelligence. (See further as to "Bills of Exchange", Part III, Chapter VII.)

A bill requires much knowledge to enable the broker to appraise it. "Value received" may be

inscribed upon it, but he wants to know how much is the value of the signature or of the holder who offers it. The amount of business done by means of such documents is, of course, very large, and bill discounting is one of the fine arts of the money market.

A MONEY MARKET REPORT

The reader of this chapter will have observed that the money market and not the Stock Exchange has been the subject treated. These two are intimately connected the one with the other, as has been shown already, but to follow the jargon of the Stock Exchange reports, still further attention to its peculiar phraseology will be necessary. (See Chapters VI and VII of this Part.) In this place an attempt will be made to elucidate some phrases which may be met in the stricter records of the money market as distinguished from the Stock Exchange. And perhaps a better method cannot be adopted than to take the actual report of the Money Market in the *Times*, say, for 24 August, 1911. Here we get at once a remark which illumines some of the exposition offered already.

> "The supply of cash available in the market was again somewhat curtailed by the preparations for making up monthly bank balance sheets, and the rates for short loans rose slightly: it was no longer possible to borrow at 1 per cent from day to day, and 1¾ per cent was charged for fixtures maturing next month."

Of course the reader will not think of coin only when he hears that the supply of cash was curtailed, but of the amount of credit to be had on the market at former rates, which were tending to rise. Then the "window dressing" of the banks is pointed to as one reason for this, for the banks in their monthly balances desire to appear as strong as possible, and are indisposed to grant loans except at higher prices. The "short loans" should not give any trouble, for they refer to loans for short-periods; but it is seen how the reserve and time are elements in the rates quoted for the day. Then we learn that—

> "The discount rates advanced for all bank bills except 'sixes', the terms for which, at 3½ per cent, are practically as high as they can be with a 3-per-cent official *minimum*. The rise was caused to some extent by the higher rates ruling for loans, but it was chiefly due to the disinclination to take bills at this season of the year except on very favourable terms, and to the knowledge that £200,000 in gold, probably sovereigns, will be withdrawn from the Bank of England for shipment to Constantinople on Friday, in addition to the bars bought for that quarter yesterday."

That is a comprehensive and suggestive report, taking cognizance of the converging influences telling upon the movements and tone of the market. It should be observed how the season and the withdrawal of gold are alike assigned as influencing the price of loans and discount rates, which last also were governed by the Bank Rate of 3 per cent—the rate since March last. A very significant suggestion is that in which the Editor refers to recent labour troubles. The "supply of cash" is not likely to remain short because of those troubles, for they will probably check the trade of the country and then diminish the amount of "cash" needed in commerce and industry. The influence of the strikes, so it is thought, is not likely to appear in the Money Market soon.

TECHNICAL TERMS

It only remains to notice a few terms which may puzzle a tyro in monetary matters. When money is said to be "cheap" or "dear", it will be understood that it has reference either to the Bank Rate or to the terms on which loans, especially "short" loans, may be had, or to both. The price of the Paris "cheque" is usually given in the equivalent of the British sovereign, viz. for 23 August, 1911 —25·26½–7½ fr.—or Berlin—20·45 mk. The "exchanges" are said to be at those rates on the two capitals. In the same way remittances to India were said to be at 1*s.* 4*d.* to 1*s.* 4$\frac{1}{16}$*d.* the rupee, just as "buying rates" were said to be on the same date at ninety days at 1*s.* 3¾*d.* for Bombay, Calcutta, Colombo, Madras, and Delhi. For the rest it is some few of the Stock Exchange phrases which the tyro meets which may puzzle him. (See "Commercial Terms and Phrases.")

CONCLUSION

All such terms become easy to the observant man after a very little experience. The whole of the subject treated summarily in this chapter never becomes easy because of the nature of the subject-matter. The question of value will always be delicate, and especially will opinion differ as to what constitutes value. The price of money also is dependent upon opinion in relation to the reserve of gold at the Bank of England. An intimate and extensive knowledge of commerce and finance will be required at all times; but, in addition, a temper and temperament should be cultivated making the operator quick to the sensitiveness of such a sphere as the money market. More and more does the money market become a public barometer where opinion is reflected with some approach to sincerity, and in which the changes of the financial atmosphere are registered with regularity and fullness. It may be asserted with confidence that the man who is diligent and sensible, and has acquired the habit of regarding money in the large sense in which it has been described in this chapter, is in a favourable position to follow and to understand the movements of the market. Until money is known as credit as well as cash, a something, too, which may be bought and sold as a commodity, and subject to the laws of supply and demand, there is no chance of a strong apprehension of those movements. When that is a firm possession, it is comparatively easy to grasp the movements and motives of those who manipulate the Bank Rate, and to move in the most delicate circle of human interests and affairs without fear, looking literally the whole world in the face.

CHAPTER V

THE FOREIGN EXCHANGES

Although the principal countries of the world now use gold coin as the basis of their monetary transactions, the coin in use in most of the various countries differ from one another in weight, fineness, and name. International trade, however, requires that a business man in one country should make payment to a business man in another country in the currency of that country, and that he should be able to determine at a given moment how much he will have to pay in the currency of the country in which he resides in order to obtain a given sum in the foreign currency payable at his creditor's place of business. In other words, a London merchant having to pay a Paris manufacturer ten thousand francs in French gold coin or its equivalent will require to know how much he has to pay in sterling to get a remittance in francs for that amount payable in Paris. Once aware of the weight and fineness of the sovereign and the 20-franc piece as determined by statute in their respective countries, it is merely a matter of arithmetic to establish the exact value of one currency expressed in terms of another, and these exact equivalents, which are known as "parity", or the "mint par of exchange" between British currency and that of the principal foreign countries, are shown in the following table:—

EQUIVALENTS OF THE BRITISH SOVEREIGN IN FOREIGN STANDARD GOLD CURRENCIES

United States of America	...	4·866 dollars.
France (and Latin Union)	...	25·225 francs.
Germany	...	20·43 marks.
Austria-Hungary ...	...	24·02 kronen (crowns).
Sweden, Norway, and Denmark	...	18·195 kroner (crowns).

The figures given in the foregoing table show exactly how much gold in the currency of the respective countries of the weight and fineness determined by law is equivalent to the pound sterling, which is defined by British law as consisting of 123·27447 grains troy of gold bullion of 11 parts pure gold and 1 part copper alloy.

The Latin Union

The Latin Monetary Union, or the Latin Union as it is usually termed, consists of France, Belgium, Greece, Italy, and Switzerland, all of which countries issue gold and silver coins identical in weight and fineness, although in some cases they are known by different names. Subject to one or two slight restrictions as regards the silver coinage, these coins circulate freely throughout the countries forming the Union. Other countries, principal among which are Spain, Rumania, and Bulgaria, have adopted the same monetary system, although they are not actually members of the Latin Union, and their coins are not therefore current in those countries.

Scandinavian Monetary Union

Denmark, Sweden, and Norway have also formed a Monetary Union, and the coins of each country are current in all three countries.

Foreign Currencies

In the following table we give the monetary unit in each of the principal countries of the world, the divisional currency, and the rough equivalent of each unit in pence. These last are merely the approximate equivalents.

Table of Foreign Currencies

Country.	Unit of Value.	Consisting of	Nominal Value. s.	d
Argentine ...	Peso (gold) ...	100 centavos	3	11½
Do. ...	Do. (paper)...	100 do.	1	9
Austria ...	Krone... ...	100 heller ...		10
Belgium ...	Franc	100 centimes		9½
Brazil	Milreis (gold)	1000 reis ...	2	3
Do.	Do. (paper)	1000 do. ...	1	4
Bulgaria ...	Lev	100 stotinki		9½
Canada ..	Dollar ...	100 cents ...	4	1½
Chile	Peso	100 centavos	1	6
China	Tael	10 mace or 1000 cash	2	4
Denmark ...	Krone	100 ore ...	1	1¼
Egypt	Pound.	100 piastres	20	6
France... ...	Franc	100 centimes		9½
Germany ...	Mark	100 pfennige		11¾
Greece	Drachma ...	100 lepti ...		9½
Holland ..	Krone, or Gulden	100 cents ...	1	8
Hungary ...	Korona ...	100 filler ..		10
India	Rupee	16 annas	1	4
Italy	Lira	100 centesimi		9½
Japan	Yen	100 sen .	2	0½
Mexico... ...	Peso	100 centavos	2	0½
Norway ...	Krone. . ..	100 ore .	1	1¼
Peru	Libra	10 soles .	20	0
Portugal ...	Milreis ...	1000 reis .	4	0
Rumania ..	Leu or Ley ..	100 bani		9½
Russia	Rouble ...	100 kopeks .	2	1½
Servia	Dinar	100 para		9½
Spain	Peseta . . .	100 centimos		9½
Sweden ...	Krone.	100 öre	1	1¼
Switzerland ...	Franc	100 centimes		9½
Turkey... ..	Pound	100 piastres	18	0¾
U.S.A.... ...	Dollar.	100 cents	4	1½
Uruguay ...	Peso	100 centavos	4	1½
Venezuela ...	Bolivar ..	100 centimes		9½

Rates of Exchange

We have already referred to the London merchant who has to make payment to a Paris manufacturer of the sum of ten thousand francs in French currency, and by means of the table of parities or powers of exchange we have seen that if he is able to exchange sovereigns for the exact equivalent in francs, each sovereign will purchase 25·225 fr. The matter is not, however, quite so simple, for our London merchant has his sovereigns in London and has to make payment in francs in Paris; that is to say, he has not merely to obtain the equivalent sum in francs, but he has to obtain delivery of such francs in Paris. Gold coin being of its full face value, he could, of course, ship over his sovereigns to France and have them there melted down and coined into 20-franc pieces, but that would cost him so much for transport and insurance. What he, of course, does, is to buy a bill or bills in francs payable in Paris. It is unnecessary here to enter into the subject of bills of exchange, which constitute a sort of floating currency available for the liquidation of indebtedness between one country and another (see Part III, Chapter VII). One bill is a record of a debt payable by a London dealer to a Paris dealer at a certain date, and another bill represents a debt payable by a Paris dealer to one in London. Each of these bills being sold to banks or bill brokers, the transmission of gold is avoided, and it is only when there is a scarcity of bills on one country, and the banks are unable to buy a sufficiency of such bills and cannot buy in any monetary centres enough bills payable in the said country to set against bills drawn by individuals in that country and payable on this side, that gold shipments have to take place. That is to say, only the final differences between countries are paid by actual consignments of gold, such shipments being usually in the shape of bar gold, which is the true international currency. It might perhaps here be mentioned that London being the financial centre of the world, bills payable in that city are very popular in other monetary centres, and form a sort of international currency until they fall due for payment.

Gold Point or Specie Point

The rates of exchange which are published periodically in the newspapers indicate the cost of making remittances to or from the towns or countries named, whether it be by the purchase of a bill of exchange payable in such places, or whether it necessitate the shipment of gold. These rates of exchange are always fluctuating according to the variations in the demand or supply of bills payable at the places desired. Obviously it is much cheaper to purchase a bill payable at a foreign centre than to ship gold, but the fluctuations in the rates of exchange take place within fairly definite limits, these limits being known as "gold point" or "specie point". This is reached when, owing to a scarcity of bills payable in a certain place, the price for such bills rises to a figure in excess of the actual par of exchange to such an extent that it would be cheaper to ship gold. Obviously, as soon as this point is reached, there is no longer any object in purchasing a bill, and for this reason the rate of exchange never goes more than a trifle beyond gold point either way. There are, of course, two gold points to each foreign exchange—one when it becomes profitable to *export* gold, the other when it becomes profitable to *import* gold.

We have already seen what is the mint par of exchange between London and the principal foreign centres. In the following tables we

show the mint par and the two specie points between London, Paris, Berlin, Amsterdam, and New York:—

Mint par between London and	Per £.	Specie Points. Export	Import.
Paris	Fr. 25·22½	25·12½	25·32½
Berlin	M. 20·43	20·32	20·53
Amsterdam	Fl. 12·10	12·02	12·17
New York	$ 4·86⅔	4·83	4·90

The gold exporting and importing points are only approximate, as the cost of transport and insurance may vary slightly from time to time.

The par of exchange between Paris is 25·225 fr., but when the exchange falls to 25·125, the point is reached when gold is likely to be exported from London to Paris. On the other hand, when the rate of exchange rises to 25·32½, shipments of gold from Paris to London become imminent.

Let us examine this a little more closely. As we have already seen, the actual gold equivalent of the sovereign expressed in francs (the mint par) is 25·225 fr. The London merchant who has to make a payment of several thousand francs in Paris at a certain date might expect, if conditions were equal—that is to say, if the amount of remittances to be made from London to Paris was exactly balanced by the amount to be made from Paris to London — to obtain about this exact equivalent of 25·225 fr. for every sovereign he laid down. Suppose, however, that the current of trade was all in the one direction, and that there was a great demand for remittances from London to Paris, and a very small demand for remittances in the opposite direction. A large number of other people would be in the same position as himself, and under the necessity of effecting payment in Paris in francs, and they would all be desirous of purchasing bills payable in Paris, with the result that, one bidding against another, the price for such bills would be advanced, i.e. the number of francs given in exchange for the sovereign would get less and less. The cost of shipping gold from London to Paris, including insurance, is about one penny (or ten centimes) per £, and if the demand for French bills were such that it drove the price up to such an extent that one could only obtain 25·125 fr. for a sovereign, it would be equally cheap to ship gold, and this acts as an effective deterrent to the exchange going anything much below that figure. The same applies in a contrary direction, and by the time the rate of exchange for remittances from Paris to London reaches 25·33 or 25·34 fr. per £, nothing is saved by purchasing bills on London, it costing no more to ship the gold itself.

Rates of Exchange on London

There are two rates of exchange between foreign centres. If we take London, for example, there will be the rates quoted in foreign centres for making remittances *to* London, and there will in London be rates for making remittances *from* that city to foreign centres. The newspapers contain each day a list of foreign rates of exchange which indicate the rates prevailing in foreign centres for bills or cheques as may be indicated payable in London. The following is such a list:—

Foreign Exchange Rates

Continental and other exchange rates on London.

Paris, cheques	25·31
Brussels, cheques	25·38
Berlin, sight	20·46½
Vienna, sight	24·01¼
Amsterdam, sight	12·09
Rome, sight	25·41½
Madrid, sight	27·33
Lisbon, sight	48½*d.*
St. Petersburg, 3 months	93·95*d.*
New York	4·86—65
Alexandria	97½*d.*
Bombay, T.T.	1*s.* 4$\frac{1}{16}$*d.*
Calcutta, T.T.	1*s.* 4$\frac{1}{16}$*d.*
Hong-Kong, T.T.	1*s.* 9⅝*d.*
Shanghai, T.T.	2*s.* 5*d.*
Do., 4 months	2*s.* 5$\frac{7}{16}$*d.*
Singapore, T.T.	2*s.* 4$\frac{1}{32}$*d.*
Yokohama, T.T.	2*s.* 0⅜*d.*
Do., 4 months	2*s.* 0¾*d.*
Buenos Ayres, 90 days	48$\frac{3}{32}$*d.*
Monte Video, 90 days	51$\frac{9}{16}$*d.*
Rio de Janeiro, 90 days	16¼*d.*
Valparaiso, 90 days	11*d.*

After the names of some of the towns a number of days or months is mentioned. This is the "usance" allowed by custom for the payment of the bill or remittance from date, such period corresponding to the time that was occupied in transit before these days of ocean greyhounds. It is obvious that in the case of a bill payable, say, sixty days or three months hence, the rate of exchange is something more than the exchange, making allowance for interest on the money during that period, for the individual purchasing a three-months' bill pays cash down, which cash is at the use of the person who has sold the bill, whereas the person to whom the bill has been remitted does not receive the cash for three months. It is always possible to purchase a cable remittance through a bank, i.e. instructions to pay a certain

sum being immediately transmitted by cablegram to the bank's agents or correspondents in the desired centre. This is sometimes designated by the abbreviation "T.T.", which denotes telegraphic transfer. In every rate of exchange there is one unexpressed unit, the figures actually given representing the amount in the one currency that is given (or has to be paid) for the unexpressed unit in the other currency. Most of the rates in the foregoing list express the amounts in foreign currency that will be given against the unexpressed unit of £1. If we take them seriatim we find that the person in Paris or Brussels desiring to purchase a cheque (or short bill) payable in London will have to pay 25·31 fr. and 25·38 fr. respectively for every £. The Amsterdam figure represents florins and cents to the £, the German rates marks and pfennige to the £, the Austrian rates kronen and heller. The Italian rates signify lire and centesimi, and the Swiss rates francs and centimes per £. The New York rate expresses the number of dollars and cents per £. The St. Petersburg rate of exchange in this list, given as 93·95, signifies the number of roubles and copecks for *ten pounds* sterling. In the remaining exchanges included in this daily list it is not the £ which is the unexpressed unit but the foreign currency, the figures indicating the number of pence that are given for each dollar or whatever the foreign unit may happen to be. Thus the Lisbon rate means $48\frac{1}{2}d.$ to the Milreis, the Brazilian rate shows the number of pence to the Brazilian Milreis, whilst the Chilian, Argentine, and Uruguayan rates indicate the number of pence to the peso or dollar of those countries. It should perhaps here be mentioned that Argentina has two units, namely a gold dollar and a paper dollar, the relationship between the paper and the gold dollar being fixed by law as one hundred paper dollars equalling forty-four gold dollars. In the rate of exchange quoted in the list it is the gold dollar which is taken into account. The Indian rates are in pence for the rupee, the Hong Kong rate is in pence for the dollar note, and the Shanghai rate also in pence for the silver tael.

London Course of Exchange

In addition to the daily list of foreign exchanges referred to, the newspapers publish every Wednesday and Friday morning a list usually headed "London Course of Exchange", which indicates rates of exchange current *in London* for remittances to foreign centres, these rates being fixed by the bill brokers and bankers who meet at the Royal Exchange every Tuesday and Thursday afternoon and form the London market in foreign bills. The following is a specimen of one of these lists:—

THE COURSE OF EXCHANGE

Amsterdam	Short	$12{\cdot}1\frac{1}{2}$ —$1\frac{3}{4}$
Do.	3 months	$12{\cdot}3\frac{5}{8}$ —$4\frac{1}{8}$
Rotterdam	"	$12{\cdot}3\frac{5}{8}$ —$4\frac{1}{8}$
Antwerp and Brussels	"	$25{\cdot}51\frac{1}{4}$—$57\frac{1}{2}$
Paris	Short	25·30 —35
Do.	3 months	25·45 —50
Marseilles	"	25·45 —50
Hamburg	"	20·62 —66
Berlin	"	20·62 —66
Leipsic	"	20·62 —66
Frankfort-on-Main	"	20·62 —66
Petersburg	"	$24\frac{7}{8}$—25
Copenhagen	"	18·41 —45
Stockholm	"	18·42 —46
Christiania	"	18·42 —46
Vienna	"	24·28 —32
Trieste	"	24·28 — 32
Zurich and Basle	"	$25{\cdot}48\frac{3}{4}$—$53\frac{3}{4}$
Madrid	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Cadiz	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Seville	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Barcelona	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Malaga	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Granada	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Santander	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Bilbao	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Zaragoza	"	$43\frac{5}{16}$—$43\frac{7}{16}$
Genoa, Milan	"	$25{\cdot}63\frac{3}{4}$—$25{\cdot}71\frac{1}{4}$
Venice	"	$25{\cdot}63\frac{3}{4}$—$25{\cdot}71\frac{1}{4}$
Rome	"	$25{\cdot}63\frac{3}{4}$—$25{\cdot}71\frac{1}{4}$
Palermo and Messina	"	$25{\cdot}63\frac{3}{4}$—$25{\cdot}71\frac{1}{4}$
*Lisbon	90 days	$48\frac{1}{16}$—$48\frac{3}{16}$
*Oporto	date	$48\frac{1}{16}$—$48\frac{3}{16}$
Calcutta	demand	$1{\cdot}4\frac{1}{32}$—$1{\cdot}4\frac{1}{8}$
Calcutta and Bombay	30 days sight	$1{\cdot}3\frac{15}{16}$—1·4
New York	demand	$49\frac{7}{32}$—$49\frac{7}{16}$

* Payable in legal currency.

It will be observed that two prices are quoted for remittances in this list; the first is for bank remittances or bills drawn on firms whose credit is beyond all dispute, whilst the second price is for what is known as ordinary commercial paper, i.e. ordinary trade bills. The London foreign bill market is rather conservative, and some differences have to be noted between the quotations in this list and those in the daily list of exchanges telegraphed from foreign centres. The Dutch exchange here does not represent florins and cents as in the daily list, but florins and stivers, stiver being the old Dutch coin equal to five cents. The Spanish rate in the London list does not represent the number of pesetas and centimos given to the £, but the number of pence per peso (five pesetas). The American rates when quoted in London are usually expressed in pence to the dollar. It may be mentioned that in the daily papers the New York rate of exchange *on* London is usually

given at the foot of the column containing the cabled prices from the New York Stock Exchange, and not in the ordinary list of foreign exchanges.

Study of the foregoing lists will reveal the fact that most of the European exchanges are expressed in the foreign currencies, the pound sterling being the unexpressed unit, whereas in the extra-European, i.e. the Argentine, Brazilian, Chinese, Indian, and Japanese rates it is usually the foreign unit which is unexpressed, the figure representing pence. Those not engaged daily in the business of foreign exchanges often experience difficulty in recollecting which is the favourable rate of exchange to this country—a high rate or a low one. A convenient way of recognizing this is to memorize the phrase: "High rates are for us, low rates against us", noting, however, that this applies to the French and other exchanges expressed in the foreign currencies and not to those, like the Indian and South African ones, where the rates are expressed in pence, in which case, of course, it is the low rates which are in our favour and the high ones against us.

CHAPTER VI

STOCK EXCHANGES

History and Development of Stock Exchanges—Constitution of the London Stock Exchange—Different Classes of Securities—Forms of Securities—Stock Exchange Transactions—New Issues—Markets and Quotations—Foreign Stock Exchanges.

HISTORY AND DEVELOPMENT OF STOCK EXCHANGES

The institution of the *Bourse* (the French equivalent of our term "Stock Exchange", German *Börse*, Dutch *Beurs*, Spanish *Bolsa*, Italian *Borse*) existed in the Middle Ages, and derived its name from the Square in Bruges fronting the house of a wealthy family of the name of van der Beurs. The first international Bourse on which the modern development of the Stock Exchange has been based was that of Antwerp. In the year 1531 the authorities in that city erected a building as a meeting-place for merchants, bearing the inscription "in usum negotiatorum cujuscunque nationis ac linguae", in which merchants from England, Italy, Germany, and other countries met and transacted business in all classes of merchandise. It was not a Stock Exchange in the narrow sense of the word, but was the forerunner of that institution in that it brought together in one permanent meeting-place, as distinct from occasional fairs and markets, men of different nationalities for the purpose of making bargains in merchandise and commodities. The nearest approach to Stock Exchange securities dealt in were bills of exchange.

After the establishment of the Dutch East India Company in 1602 and the West Indian Company in 1622, Amsterdam gradually came to assume the importance formerly enjoyed by Antwerp, and on the Amsterdam Exchange time bargains and the general machinery of transacting Stock Exchange business reached a high degree of efficiency. On this Exchange share dealings took place, for in a book issued in 1688 by Joseph de la Baga, share dealing is referred to as a "pack of swindles", a "grave of useful wealth", and a "cause of untold evil". The author divided purchasers of shares into three classes, which hold good and true to the letter right up to the present time. These three classes were:—

1. The better class of solid capitalists who do not worry much regarding quotations, but hold for dividends.
2. Merchants who buy shares in the hope that they may later on be able to sell them at a profit.
3. Speculators who frequently remain in debt as regards the purchase money and are compelled to "continue" their bargains.

The author gave further sage advice which might have been written in the present day, such as, for example, that a profit should always be taken without hesitation, and if after this has been done the price rises further, no regret should be felt. Shares should not be held too long—one should not be wedded to them. A list of quotations on the Amsterdam Bourse in the year 1747 contains prices for forty-four different securities.

The history of the Stock Exchange as we know it is inseparably bound up with the growth of Government debts in negotiable form and the development of Joint-Stock Companies. It took centuries to discover the most suitable medium of exchange and measure of value in the shape of coins which can be passed from hand to hand, and it was not until many centuries later that the idea of making capital and debts circulate in the shape of interest-bearing paper came to be acted upon. Once this was devised, it required only a sufficient quantity of such interest-bearing papers

and a sufficient number of capitalists desirous of acquiring and in turn selling and exchanging such securities to bring into being a regular market for transaction of business therein. Before this business could come about, the necessary paper or securities had, of course, to be created.

The first great Joint-Stock Company formed in England was the famous New River Company, which was established in the reign of James I. During the reign of the Stuarts, with the debased coinage and forced loans extorted from the goldsmiths, there was not much opportunity for any considerable extension of joint-stock enterprise. At the commencement of the reign of William and Mary in the year 1694, a scheme devised by William Paterson, a Scotsman, was put into practice, and the Bank of England formed as a Joint-Stock Company. In its inception it was a Whig organization and met with considerable opposition, but the £1,200,000 capital required was subscribed in a few hours. The scheme was welcomed by the Whig Government of the day, because it gave an opportunity of raising money to keep out the Stuarts, and the Bank's charter was only granted on the condition that the whole of its capital should be lent to the Government in return for certain privileges, including the right to issue notes to the extent of the said loan. The Bank's capital, as well as its loans to the Government, was frequently increased; but there is no need to follow its history here (see Chapter II of this Part), for what interests us is merely the fact that the stock of the Bank of England was probably the first shares the purchase and sale of which were rendered available to the general public of this country. In 1695 the public National Debt, that is to say the loan to the Government offered for public subscription, was started, and thus about this time there were created a number of negotiable securities which could be transferred from one person to another. Three years later the new East India Company received its charter on the same terms as the Bank of England, namely, that the whole of its capital should be a loan to the Government. By the year 1711 the funded National Debt had reached the figure of £11,750,000, all of which was in the hands of investors in some shape or other at varying rates of interest. There was also a large unfunded Debt, of some £9,000,000, and another Joint-Stock Company, called the South Sea Company, was formed to take over this debt, receiving certain privileges in return, besides which the Government pledged certain duties on beer, wine, and tobacco to meet the interest on the Company's £9,000,000 of capital. Some ten years later a scheme was evolved by one of the directors of the South Sea Company to take over the whole of the existing National Debt, amounting to £31,000,000, provided that the Government guaranteed 5 per cent interest for the first seven years and a perpetual 4 per cent thereafter. The offer was ultimately accepted, and the Company offered for subscription £1,000,000 of its stock at a premium of 200 per cent, i.e. subscribers had to pay £300 for £100 of stock. Various rumours favourable to the Company were circulated, and the issue was hugely over-subscribed. Issue followed issue, and the country went speculation mad. The £100 shares of the South Sea Company reached the price of £1000 and even over, and companies of all sorts and descriptions were formed, many of them with objects, or in pursuit of schemes, which now appear too preposterous ever to have been taken seriously by sane people. The City was crowded with all sorts and conditions of people anxious to invest their money in these new methods of getting rich quickly, either by subscribing for shares in new companies in the hope of getting some allotted to them, or by purchasing shares from those fortunate individuals who already possessed them. There had sprung into existence a class of dealers in shares, whose headquarters were mostly in the coffee-houses of Change Alley and the numerous courts off Cornhill. The frequenters of one of these coffee-houses, known as New Jonathan's, apparently resolved in 1773 to call the establishment the "Stock Exchange", that name being painted over the door. Most of the frequenters constituted themselves members, and paid a small subscription, drew up a set of rules, and appointed a committee of management. That it was not very exclusive was, however, shown by the fact that daily admission could be gained by the payment of sixpence. The accommodation provided by this establishment soon, however, became insufficient, and at the beginning of the nineteenth century a building was constructed in Capel Court close to the Bank of England, where the Stock Exchange now stands. Being concealed on almost every side by other structures, it does not present that imposing appearance which should be presented by what is probably the most important Stock Exchange in the world.

CONSTITUTION OF THE LONDON STOCK EXCHANGE

In most foreign countries the Stock Exchange is a semi-public institution, and more or less under the control of the Government. The public are usually admitted, be it to transact business themselves, to approach their brokers, or merely as spectators. The London Stock Exchange is, however, wholly a private institution, subject to no outside control beyond the ordinary law of the land, and members of the public are on no account permitted to enter its precincts. It is governed by a Committee elected by members. The ruling of this Committee, which consists of thirty members holding office for twelve months ending 25 March, when all retire but are eligible for re-election, is absolute with regard to its members, and all questions of management and procedure come before it. The building is owned by a Company, and, although the rule is only of recent date, all members now admitted must hold at least one share.

Rules of the Stock Exchange

The Rules and Regulations of the London Stock Exchange occupy over one hundred pages of print. To give them *in extenso* is unnecessary, but as the practice of most British Stock Exchanges is based more or less upon these rules, it is desirable that we should at least give some of the principal ones in summarized form, particularly those governing the conditions of membership and regulating business.

Committee

The first few rules deal with the election and duties of the Committee of thirty members already referred to. No member is eligible for election to this Committee unless he has been a member for the five years immediately preceding the day of the election. For purposes of the ballot, each member has one vote only. The decision of the Committee is absolutely binding upon members, and it may expel or suspend any member who violates any of the rules or regulations, fails to comply with the Committee's decisions, or is in their opinion guilty of dishonourable or disgraceful conduct; and the Committee has power to notify or cause to be notified to the public the expulsion or suspension of any member, or the fact that he has become a defaulter. "No action or other proceeding shall under any circumstances be maintainable by the person referred to in such notification against any person publishing or circulating the same, and this Rule shall operate as leave to any person to publish and circulate such notification and be pleadable accordingly."

Re-election, Admissions, and Re-admissions

On the first Monday in March the Committee re-elects such members and admits such candidates as it considers eligible to be members, for one year. Rule 22 is an important one, as it requires a declaration on the part of each applicant for admission or re-election.

> "Every Member or Applicant for Re-election, Admission, or Re-admission shall declare whether he proposes to act as a Broker, Dealer, or Clerk, or that he is not engaged in active business, and no Member shall alter his status from Broker to Dealer, or from Dealer to Broker, without first giving one month's notice to the Committee, which notice shall forthwith be posted in the House."

With the exception of those candidates who have completed four years' service as Clerks in the Stock Exchange or the Settling Room, a candidate for admission has to obtain the nomination of a member willing to retire in his favour, or of a former member, or of the legal personal representative of a deceased member. At a special meeting held in December of each year the Committee fixes a certain number of admissions to membership for the year commencing on 25 March following, open to candidates with two recommenders without nomination; and a Clerk who has completed four years' service as already mentioned may make application to be placed on what is known as the "Waiting List" of candidates for election without nomination, and as soon as he falls within the number fixed by the Committee he is balloted for.

In view of the remarkably large number of foreigners who are members of the Stock Exchange (knowledge of the German tongue stands one in good stead in this institution), it is interesting that Rule 29 reads:—

> "A Candidate, who has been a Foreign Subject, is ineligible until he has been naturalized for a period of Two years, and a resident in this country for Seven years."

An important rule is that which prohibits a Member from being engaged as Principal or Employee in any business other than that of the Stock Exchange. This rule (No. 30) reads as follows:—

> "A Candidate is ineligible, if he be engaged as Principal or Employee in any business other than that of The Stock

Exchange, or if his wife be engaged in business, or if he be a member of or subscriber to or be a Shareholder or Debenture holder in any other institution where dealings in Stocks or Shares are carried on; and if, subsequently to his admission, he shall become subject to any one of these objections he shall cease to be a Member, upon Resolution of the Committee to that effect."

It is doubtful whether this rule is strictly adhered to, as some Members of the Stock Exchange are, for example, directors of and shareholders in Banking companies, which are not only businesses "other than that of the Stock Exchange", but are in a measure institutions carrying on dealings in stocks and shares. When, however, in 1910 some prominent Members of the London Stock Exchange became shareholders in an important institution created under influential auspices to issue debenture loans, &c., and to effect purchases and sales of similar securities, this rule was successfully invoked, such Members being compelled to part with their shareholdings.

A candidate is ineligible if he has been bankrupt or has compounded with his creditors, unless he can prove that he has paid 20s. in the £ and obtained a full discharge; and no one is eligible who has more than once been bankrupt or insolvent or compounded with his creditors. A candidate for admission must be recommended by three Members (known as Sureties) who have been Members for not less than four years. Such recommenders have to engage themselves to pay £500 to the creditor of the candidate should he be declared a defaulter within four years of the date of his admission. If, however, the candidate has served as a Clerk in the Stock Exchange or Settling Room for four years, only two recommenders are required, and their engagement is for £300 instead of £500.

Rule 36 is interesting in that the chairman of committee has to ask each recommender the following questions:—

"(i) Has the applicant ever been a bankrupt, or has he ever compounded with his creditors? and if so, within what time and what amount of dividend has been paid?

"(ii) Would you take his cheque for Three thousand pounds in the ordinary way of business?"

"(iii) Do you consider he may be safely dealt with in securities for the Account?"

And such further questions as may be deemed necessary.

A whole set of rules governs the re-admission of members who have defaulted, but Rule 44 is of importance in that it indicates the principles on which defaulters may be re-admitted to membership.

"The re-admission of Defaulters shall be in one of two Classes:—

"The First Class to be for cases of failure arising from the default of principals, or from other circumstances where no bad faith or breach of the Rules and Regulations of The Stock Exchange has been practised, where the operations have been in reasonable proportion to the Defaulter's means or resources, and where his general conduct has been irreproachable.

'The Second Class, for cases marked by indiscretion, and by the absence of reasonable caution."

No defaulter is, however, eligible for re-admission if he has not paid out of his own resources independently of his security money at least one-third of the balance of any loss that may occur on his transactions.

Partnerships

Particulars of partnerships between members have to be furnished to the secretary of the Stock Exchange. Partnerships with non-members are absolutely prohibited, and a concealed partnership in the guise of a loan from a non-member on terms that the lender receives a rate of interest varying with the profits is not permitted. The most important provision is that partnerships between brokers and dealers (jobbers) are absolutely prohibited.

Stock Exchange Clerks

Rule 56 reads as follows:—

"(1) A Member may be permitted to introduce three Clerks to the House, one of whom may be Authorized; also two Settling-room Clerks.

"(2) A Firm may be permitted to introduce five Clerks to the House, two of whom may be Authorized; also four Settling-room Clerks.

"(3) Members may be employed as Unauthorized Clerks in excess of the numbers above allowed; and Members may be employed as Authorized Clerks in excess of the numbers above allowed, with a limit of one for an individual Member, or two for a Firm."

Before a Clerk is admitted to the Stock Exchange, the Member applying must satisfy the Committee that the Clerk is over twenty-one years of age in the case of an Authorized Clerk (i.e. authorized to transact business on behalf of his Principal), and over seventeen years in the case of an Unauthorized or Settling-room Clerk; that he has obtained a satisfactory reference from the clerk's last employer; and that he has a sufficient knowledge of the clerk's previous career. An individual cannot become an Authorized Clerk until he has been admitted to the Stock Exchange or Settling Room for two years. An Unauthorized or Settling-room Clerk, unless he happens to be a Member of the Stock Exchange working in that capacity, has

to wear a distinctive badge in the lapel of his coat. These badges are blue in the case of the Unauthorized Clerks and red in the case of the Settling-room Clerks.

Bargains

Rule 69 is of some importance, and reads as follows:—

"The Stock Exchange does not recognize in its dealings any other parties than its own Members; every bargain, therefore, whether for account of the Member effecting it, or for account of a principal, must be fulfilled according to the Rules, Regulations, and usages of The Stock Exchange."

Legal Proceedings

Another rule lays down that no Member may attempt to enforce by law against another Member a claim arising out of a Stock Exchange transaction without the Committee's consent, and in the case of any infraction of this rule, the Committee has power to intervene and, in the ominous language of the rule, to "deal" with such cases as the circumstances may require.

In the event of a non-Member, that is to say a member of the ordinary public, making any complaint against a Member of the Stock Exchange, the Committee in the first place considers whether the complaint is a fit one for them to adjudicate upon; and if this is decided in the affirmative, the complainant has first to sign an agreement binding himself to abide by the Committee's decision and not to institute any legal proceedings in respect of the case submitted (see Chapter VII of this Part).

Advertising

Rule 74 is short, but of great import, for, as in the case of the medical and legal professions, it absolutely prohibits its Members from advertising and from issuing circulars to anyone other than customers. The Rule reads as follows:—

"A Member of The Stock Exchange is not allowed to advertise for business purposes, or to issue circulars or business communications to persons other than his own Principals."

This rule does not give universal satisfaction, for it gives a great advantage to outside brokers, i.e. firms doing a business in stocks and shares but not members of the Stock Exchange, as it enables the latter to make themselves known to the general public, many of whom are ignorant as to what procedure to adopt when they wish to carry out a Stock Exchange transaction.

Rule 76 reads:—

"A Member shall not transact speculative business directly or indirectly for or with an Official or Clerk in any public or private establishment without the knowledge of his employer."

We are afraid that this rule is more honoured in the breach than in the observance.

Another rule prohibits members from making private bargains with individual members of Stock Exchange firms if such bargains are concealed from the firm.

The remainder of the rules deal with the manner in which bargains shall be carried out and adjusted; these are principally matters of detail, and, where they call for notice, will be dealt with elsewhere (and see Chaper VII of this Part).

DIFFERENT CLASSES OF SECURITIES

To gain a correct idea of the different classes of Stock Exchange securities, it is desirable mentally to constitute a dividing line, thus placing them in two great categories, namely those securities possession of which constitutes one a creditor, and those the ownership of which renders one a partner. The holder of Consols is entered upon the books of the Bank of England as having lent the British Government so much money; he is therefore a creditor of the British Government. In the same way the holder of any Government or Municipal loan is a creditor. This is simple and obvious enough. In the case of Companies, however, and particularly where a Company, e.g. a Railway Company, has issued many descriptions of securities, including Debenture Stock, Guaranteed Stock, Preference Stock, Consolidated Ordinary Stock, Preferred Ordinary Stock, and Deferred Ordinary Stock, it is not so easy a matter for the uninitiated to determine into which category each particular stock falls, for the assumption held by many, that a stock upon which the interest is fixed and unvarying is much the same as a debenture, is incorrect.

As has already been indicated, the dividing line is ascertained by asking the question, "Does the possession of this security constitute the holder a creditor or a partner?" In the case of Companies it is only Debentures, Bonds, or Notes repayable within a fixed period the possession of which constitutes one a creditor. The holder of any class of Capital Stock or shares, be it Guaranteed Stock

or Preference Stock, is a partner, the only respect in which he differs from holders of Ordinary Stock or shares being that in some matters, such as his claim on the profits or on the assets of a Company in the case of a winding up, he takes priority over the claims of holders of securities junior to his.

The following is a list and brief description of the different classes of securities dealt in on the Stock Exchange:—

"A" Stock.—The ordinary stocks of some Companies (principally Railway Companies) are sometimes divided into two classes called "A" stock and "B" stock. Sometimes "A" stock is called Deferred Ordinary Stock. The holder of this class of stock is not entitled to receive any dividend until the claims of holders of those classes having priority, i.e. Preferred Ordinary, sometimes called "B" Stock, have been satisfied.

"B" Stock—sometimes termed Preferred Ordinary Stock. Holders of this stock are entitled to a fixed dividend before holders of the "A" or Deferred Stock receive anything.

Bond.—The word is often used to denote the document itself (see p. 28), but it is also used in a general sense, in connection with loans issued by a Government, Municipality, or Company, in which case it is of a like nature to Debentures.

Convertible Stock.—This may be Convertible Debentures or Convertible Preference Stock, the precise nature of the security being always indicated. The word convertible indicates that possession of the security carries with it the option of converting it at a fixed rate at some time or other into a certain quantity of another class of stock, usually inferior from the point of view of security, but offering a higher yield. As the holder enjoys—and may as his option continue to enjoy—the greater security attached to the class of Debenture or Capital Stock or share he possesses, but with the right to exchange it for a security which may rise to a much higher price during the period of his right of convertibility, his free option to offer it may become of value, and Convertible Bonds of this nature, which are often issued by American Railway Companies, are on this account popular.

Corporation Stock.—A loan raised by virtue of an Act of Parliament, secured upon the property within the boundaries of the Corporation by which it is issued, over which the Corporation has power to levy rates.

Cumulative Preference Stock (or Shares).—This indicates that if the full dividend to which the stock or share is entitled cannot be paid out of one year's profits, the deficiency must be made good out of future profits before stocks or shares ranking behind it are entitled to participate.

Currency Bonds.—The loans of some foreign Governments and of some American Railroads are termed Currency Bonds to denote that they are payable both as regards principal and interest in the currency of the State in which they are issued.

Debentures or Debenture Stock.—The security given by a Joint-Stock Company for money raised on loan.

Equipment Bonds.—These are bonds issued by Railroad Companies to provide funds for new rolling stock, locomotives, &c., on which they are specifically secured. These bonds, which are usually issued in connection with American Railroads, are almost invariably repayable within a few years of their issue.

Founders' Shares.—These are shares set apart by the promoters of a Company which usually participate in the profits only after a certain dividend has been paid on the ordinary shares. In the case of very successful Companies, e.g. Harrod's Stores, Founders' Shares can be of very great value.

Funded Certificates.—Sometimes a Company which is in arrears with its interest on a loan issues certificates for such interest in arrear; these are known as Funded Certificates.

Gold Bonds.—Bonds on which the interest is payable in the gold coin of the State issuing them, as distinct from bonds that are payable in currency or paper.

Guaranteed Preference Stock.—This indicates that the interest is cumulative, and if not paid in full for any certain period, would be satisfied out of future earnings before any stocks ranking behind it receive a dividend. The term is usually used in connection with Railway Stocks, and is equivalent to Cumulative Preference Stocks.

Guaranteed Stock.—This may be merely another way of describing Cumulative Preference Stock, as in the case of many Railway Companies; or may denote that the dividend is actually guaranteed by another Company or Government.

Income Bonds.—A security peculiar to North American and South American Railways. These Bonds rank after Debentures but before Preference and Ordinary Stocks.

Non-cumulative Preference Stock.—This indicates that if the full dividend due upon the stock or shares is not earned and paid out of the profits of one year, the arrears do *not* have to be paid out of the profits of future years.

Obligations.—The French term for Bonds and Debentures; often used in connection with those securities when issued in foreign countries.

Participating Preference Stock or Shares.—Stock

or shares entitled to receive interest at a fixed rate (cumulative or non-cumulative as the case may be) and participating in the surplus profit in a determined proportion after payment of certain dividends upon the ordinary capital.

Preference, Preferred, or Preferred Ordinary Stock or Shares.—Stock or shares ranking for interest in front of Ordinary or Deferred Stock or shares. When, as is usually the case, the fixed rate is indicated, e.g. Five per cent Preference Stock, the stock enjoys preference to the exten of the interest thus indicated.

Prior Lien Bonds.—Bonds having prior rights for dividend, interest, and principal in front of other issues.

Short Term Bonds (or Notes).—As the name implies, these are Bonds or Debentures repayable at an early date. American Companies in particular frequently issue Notes or Bonds repayable after the expiry of one, two, or three years.

Treasury Bills or Bonds.—Part of the floating debt issued at the convenience of the Treasury or Exchequer of a country. They are usually current for very short periods.

FORMS OF SECURITIES

Stock Exchange securities exist in the shape of Registered Stock (Capital Stock), Inscribed Stock, Registered Shares, Share Warrants to Bearer, Registered Debenture Stock, and Bonds. Stock is the capital of a Company not divided into shares of fixed nominal values or denominations, and may be transferred in any broken amount. The term is not used merely in connection with the capital of a Company, but also in connection with its loans (Debenture Stock), as well as in connection with Government and Municipal Loans. It is possible to purchase any amount, as, for example, £125, 14*s.* 7*d.* of Consols, which word is an abbreviation for British Government Consolidated Stock. There are two classes of stock, registered and inscribed. In both cases the proprietor is entered by name as the holder of the stock; but in the case of registered stock, when it is desired to transfer an amount from the name of a proprietor to that of a purchaser or other person, this is done by means of a deed of transfer as is described in the following pages; whereas in the case of inscribed stock, the individual whose name is entered upon the books as proprietor must attend at the place where the register is kept and sign it before the stock can be transferred. This being evidently impossible in the case of individuals resident a long way off, the difficulty is overcome by such persons giving a power of attorney authorizing some other person to sign the register on their behalf. The system of inscribed stock is exceedingly cumbrous and unpopular, and is practically confined to Government loans. The capital of most Companies consists not of stock, but of shares of a fixed denomination, usually shares of one pound each, although shares of five pounds and ten pounds are not uncommon, and since the days of the rubber boom in 1910, shares of two shillings each are not infrequently encountered.

As we are now dealing with the form and not the nature of securities, it is unnecessary to distinguish specially between loans, or *debenture* stock, and *capital* stock or shares, the formalities in connection with the handling and transfer of which are regulated entirely by the form, and not by the different privileges and disabilities attaching to one or the other.

The individual who is inscribed or registered as the holder of stock or shares receives his interest or dividends, as the case may be, direct from the bank entrusted with the service of the loan (in the case of a Government or Municipal Loan) or from the Company, by means of a cheque, or dividend warrant as it is sometimes termed, posted direct to his address, although if he wishes it and gives the needful instructions, it can be paid direct to his bankers or any other party for the credit of his account. If he sells his holding or wishes to dispose of it by way of gift or otherwise, the change in proprietorship is effected (leaving out of account inscribed stock, the transfer of which has already been described) by means of a deed of transfer. For the common form see Part III, Chapter IV. The quantity of stock or the numbers of the shares and the full description of the securities, as well as the full names and addresses of the existing proprietor (the transferor) and of the purchaser or party into whose name it is desired to transfer the stock or shares (the transferee) have to be inserted, together with the amount paid by the purchaser. The deed has to be signed by the transferor and the transferee, whose signatures have to be attested by a witness in the place indicated. This done, it must be impressed with the necessary stamp duty calculated on the purchase money, and is then presented at the Bank or Company's office, as the case may be, accompanied by the certificate, in the name of the existing registered proprietor, indicating his title to the stock or shares. If found in order, the necessary entries denoting change of ownership are made upon the books, and in due

course a fresh certificate for the particular stock or shares is issued in the name of the new proprietor. The following is a specimen of a common form of certificate:—

No. of Certificate,
572.

No. of Shares,
100.

UNITED EXPLORING COMPANY, LIMITED

CAPITAL: £500,000 in 500,000 Shares of £1 each

This is to Certify that .... of ....
.... is the Registered Holder of .... Shares of One Pound each, fully paid up, numbered .... in the UNITED EXPLORING COMPANY, LIMITED, subject to the Memorandum and Articles of Association of the Company.

GIVEN under the Common Seal of the Company this .... day of September, 1911.

.... *Secretary.* .... *Director.*

Seal
of
Company.

The foregoing applies to Registered Capital Stock, Registered Shares, and Registered Debenture Stock alike. Capital Stock, Shares, and Debentures can also be issued in the shape of Bearer Bonds or Warrants. These are documents issued in fixed denominations, as, for example, £100 or £20 of Capital Stock or Debenture Stock, and one share of £1 or five shares of £1 of a Company, which, instead of being made out in the name of the proprietor, certifies that *The Bearer* is the holder of so much or so many debentures or shares—hence the name Bearer Bond or Share Warrant to Bearer. This is not, however, the only difference between registered stock or shares and bearer stock or shares. In the case of the former, the interest or dividend payments are made direct to the registered holder by means of a remittance; in the case of bearer securities this cannot be done, as it is obvious that the Company or paying Bank cannot possibly be aware of the names and addresses of holders of securities, the ownership of which can change by the mere passing from hand to hand of a document. Consequently, each bearer bond or share has attached to it a sheet of coupons, and when the interest or dividend is payable, the holder or the banker with whom the bond is deposited has to cut off the particular coupon which is due (the different coupons are numbered, No. 1 being due on a certain date, No. 2 on another date; and so on) and present it to the Bank or institution at which it is payable. We append the wording of a typical bearer bond with coupons attached. A voucher (technically known as the "talon") forms part of most bearer bonds, so as to allow for the supply of a fresh sheet of coupons when those attached to the bond are exhausted, the fresh sheet bearing the corresponding numbers being issued only against surrender of the respective talon.

DOMINION OF CANADA

PROVINCE OF BRITISH COLUMBIA

Pounds
100
Sterling.

Pounds
100
Sterling.

Local Improvement Debenture of the City of Victoria

DEBENTURE No. 5555

THIS DEBENTURE is one of a series of 134 like Debentures of £100 Sterling, each numbered from 3476 to 3609, issued under the Municipal Clauses Acts, and By-law No. 781 of the City of Victoria.

THE CORPORATION OF THE CITY OF VICTORIA

hereby promises to pay to the bearer of this Debenture the sum of

ONE HUNDRED POUNDS (£100)

Sterling, on the 26th day of November, 1920, at the office of the Bank of British North America, London, England, and to pay interest thereon at the rate of Four per centum per annum from the date hereof half-yearly at the Bank of British North America, London, England, on the 21st day of January and the 21st day of July in each year, to the bearer of the Interest Coupons hereto annexed as they respectively become due, on presentation and surrender thereof to the said Bank, or upon satisfactory proof of ownership and indemnity in case of loss.

THIS DEBENTURE and the Interest thereon is secured by the special rates charged, levied, and imposed, and to be collected under the above By-law No. 781 and the funds from time to time representing the same.

IN WITNESS WHEREOF The Corporation of the City of Victoria has caused these presents to be signed by the Mayor and the Clerk of the said Corporation, and sealed with its Corporate Seal, this 26th day of November, 1910.

.... *Clerk of Victoria.* .... *Mayor of Victoria.*

CITY OF VICTORIA, £2 0 0
BRITISH COLUMBIA.

One half-year's interest due 21st Jan., 1912, on local Improvement Debenture No. ....
For Two Pounds Sterling.
Payable at the Bank of British North America, London, England.

.... *Mayor of Victoria.*

COUPON No. 13.

A few British Companies do not issue coupons with their bearer warrants, the dividends being paid on presentation to the Companies' offices of the warrants themselves. This is a cumbrous procedure, and not generally adopted.

It may be mentioned that the system of registered stock and shares is essentially British, whereas the system of bearer securities obtains generally abroad. There is, however, an increasing tendency in the United Kingdom to adopt the form of bearer securities, or at least to give investors the option of having either the one or the other. Both forms have their advantages and disadvantages. The registered holder feels safer in one respect, for if he should have the misfortune to lose his certificate, no very great harm is done, as before the stock or shares can be transferred from his name a deed of transfer bearing his signature as transferor would have to accompany the certificate and be lodged at the Company's office for registration before the ownership could pass to another person; and even then, if the Company pass such transfer on a forged signature, it would be liable to the rightful owner for the value of the shares. (See Part III, Chapter IV.) In the case of a share warrant to bearer, the loss of the document is tantamount to losing the security itself. Furthermore, whilst a registered holder receives his dividends direct without any effort on his part, and receives in the same manner annual reports and any other communications of importance issued by the Company in which he is interested, the holder of bearer shares has to make sure that his coupons are cut off and presented at the proper time. In the case of interest coupons payable at fixed periods this is not difficult, but in the case of the shares of a Company not paying dividends for ~~some time, or~~ the dividend payments of which are irregular, it means that he or his agents must keep a careful lookout for the advertisements notifying such payments. In addition, he must rely upon the Press or must write specially to the offices of the Company, to be kept informed of the contents of any reports or communications issued by the Company. Thus far, the balance of advantage would appear to lie with the registered form. Actually, however, this is not the case, and opinion in this country is gradually veering round more and more towards the foreign view, which is that bearer securities are the better form, and this for the following reasons. When it comes to transferring the registered stock or shares, a transfer form has to be filled up and executed by at least three, or often more, individuals (transferor, transferee, and a witness or witnesses), impressed with an *ad valorem* stamp within 30 days of the date of the deed, and sent to the Company for registration, together with a fee. If the transfer deed contains the least misdescription or error—and this it frequently does—the company most likely refuses to accept it, and it has to be returned for alteration and initialing by all the parties. When in order, some weeks elapse before the new certificate is ready for delivery, and if the transferor is only selling part of his holding, he has to send up the certificate for his entire holding, and has to wait several weeks before he receives a fresh certificate for the balance. As compared with this, the holder of a bearer security simply hands over the document, and the matter is completed.

As for practical reasons it is impossible to levy

stamp duty every time bearer securities change hands, the Treasury allows what amounts to a compounding of the transfer duty, by enacting that bearer securities shall be impressed with a stamp double that levied upon a transfer of registered stock or shares. While this falls more heavily upon the firms or companies issuing the bearer stock in the first place, it is a decided advantage to subsequent purchasers, who are freed from payment of stamp duty. The disadvantages attaching to bearer securities in the shape of liability to loss or theft, and the necessity of claiming one's dividend or interest, are in a great measure overcome by the practice of depositing them with one's banker, the banker detaching the coupons and presenting them for payment on the due dates.

As collateral security for loans, the superiority of bearer securities over registered ones is obvious.

STOCK EXCHANGE TRANSACTIONS

Although it is, of course, quite possible to give this subject formal treatment, a much readier comprehension of Stock Exchange operations will be gained if we deal in colloquial fashion with the carrying through of the more ordinary forms of Stock Exchange operations. We will commence with the most ordinary transaction, namely, a *bona fide* purchase for investment.

We will assume that Mr. Walter Blakemore, of The Elms, Highgate Grove, London, N., is an individual who finds himself in the possession of £500 of surplus capital. Not being satisfied with the 1½ per cent he is receiving from the Bank with which the money is temporarily placed on deposit, he desires to invest this sum in a safe Stock Exchange security which he is reasonably certain of being able to sell at any moment, should he desire to do so, and which meantime will return him in the shape of interest on his money something like 4 per cent per annum. He asks the firm of stockbrokers through which he is in the habit of carrying out transactions of this description to suggest some suitable securities; or, if he has confidence in his own judgment, he himself looks through the stocks quoted in his daily paper; or, better still, purchases a copy of the Stock Exchange Official List, which contains the prices of many more securities than are quoted in any ordinary daily paper. Finally he decides that the 4 per cent Loan of the City of Victoria (British Columbia), which he observes is quoted at 99–101, is the most suited to his purpose, for he is satisfied that there is no likelihood of so important a city ever defaulting; and, being a prudent individual not unacquainted with the essentials of good investment, he notes with satisfaction the fact that the loan is repayable at par within ten years or so—a circumstance rendering any pronounced fall in price most unlikely. The fact that for every £101 or thereabouts he will have to pay now he will only receive £100 when the loan comes to be repaid does not disconcert Mr. Blakemore, for, as he is effecting the purchase in October, and the half-yearly coupon falls due for payment on 21 January following, he realizes that the price of £101 includes about £1 of interest which has accrued since the last interest payment—in other words, he has only to wait three months in order to receive a full half-year's interest, so that the real price of the loan is par (or 100 per cent), the other pound being the equivalent of the accrued interest. Our imaginary purchaser therefore writes to his brokers, Messrs. Dodd & Jones, instructing them to buy for his account City of Victoria 4 per cent Loan, of the nominal value of £500. He will probably add that he notices it is quoted at 99–101, and trusts they will be able to secure it for him at a favourable price; in any case, he does not wish to pay more than 101. This is known as a limit; that is to say, the broker is not authorized to exceed this price. On receipt of this letter a note of the order is entered in a book along with any other orders that may have come in, and one of the partners of Messrs. Dodd & Jones, or one of their clerks who is admitted to the Stock Exchange, taking this book, will enter that building, walk into that part of the House where dealers or jobbers (in the Stock Exchange the terms are synonymous) in this class of security stand, and will approach the jobber whom he knows or considers to be the best "market" in this security, and ask him what is the dealing price in City of Victoria Loan. The jobber may reply 99½–100½. The significance of these two prices is that the jobber is prepared to buy City of Victoria Loan at £99, 10*s*. per £100, or to sell it at £100, 10*s*. per £100. The broker does not usually disclose whether he comes into the market as a buyer or a seller. The custom of the Stock Exchange is that a jobber who quotes a dealing price is compelled to buy or sell, as the case may be, up to £2000 of stock or 100 shares if the market price is below £1, or 50 shares if the price is over £1, at the prices he has given. If he does not consider the price named a satisfactory one, the broker, before closing the transaction, might

approach another jobber and see if he can get a better price there. If, however, he considers the price the best that can be obtained in the circumstances, he would in the present instance intimate that he bought £500 at 100½. Each party would make a memorandum of the bargain in his "jobbing book" (the book referred to being known by this title regardless of whether it belongs to a jobber or broker). If he thinks fit, the broker will have the bargain "marked". Either he or the jobber will fill in on a small printed slip the name of the stock and the price at which it changed hands, will sign it, and hand it to the Clerk in charge of the Marking Board; this official will record on the Marking Board the price mentioned on the slip, and these records are at the end of the day reproduced in the Official List, showing some of the business done. Such markings can only be effected in the case of securities which are quoted in the Official List, and their marking is entirely optional on the part of the broker or jobber. Only a small portion of the bargains done are marked. It often gives a client some satisfaction to identify his particular transaction by seeing the price at which he purchased shown as business done, and it gives him the satisfaction of feeling that he is checking the price reported to him by the broker. At the same time it must be admitted that these official markings are no sure evidence of the price in a particular transaction, for they do not indicate whether the transaction shown was a buying one or a selling one on the part of the jobber, and manifestly, with the two prices already referred to, everything depends on whether the transaction marked was a sale or purchase.

When he gets back to his office, the broker or his representative reports the business done, the transaction being copied from the "jobbing book" into another book known as the "checking book", and from the latter a contract is written out and forwarded with a letter of advice to the client. Next morning, therefore, Mr. Blakemore will receive a letter from Messrs. Dodd & Jones informing him that they had great pleasure in carrying out his valued instructions, and that they enclose contract for the purchase of £500 City of Victoria 4 per cent Loan, at 100½. The contract will be worded much in the following form:—

DODD & JONES.

Warnford Court, Throgmorton Street,
LONDON, E.C.,
and the Stock Exchange,
17th October, 1911.

To *Walter Blakemore, Esq.*,
The Elms,
Highgate Grove, N.

We have this day bought as per your order, subject to the Rules, Regulations, and Customs of the London Stock Exchange—

500 City of Victoria 4% Loan @ 100½	£502	10	0
Brokerage @ ½%	2	10	0
Contract Note Stamp	0	2	0
	£505	2	0

Registration Fee, *nil*; Transfer Stamp, *nil*.

For payment on *27th October*, 1911.

E. & O. E.

DODD & JONES,
Members of the London Stock Exchange.

It will be observed that the contract note makes mention of the date on which the purchase money is to be paid. Stock Exchange transactions are not usually for cash, but for settlement on a fixed date known as the "account" or the "settlement". There are two of these each month—one about the middle of the month, the other about the end of the month—and on these days are adjusted the different transactions that have taken place during the "account", i.e. from one settlement to another. Thus, in the present instance, the last settling day having been 12 October, it would have made no difference as to the actual date of payment had the purchaser given his order to buy the £500 City of Victoria a week later. In Consols and other British Government stocks there is only one account day each month, usually within the first two or three days of the month. Government stocks may also be bought and sold "for cash", i.e. immediate payment, and this may indeed be done exceptionally in the case of most securities, although it is not usual.

About a day before the money is due, Mr. Blakemore would receive a statement showing the amount due from him, and in exchange for his remittance would receive bonds for £500 of

the City of Victoria Loan. In this case it will be noticed we speak of bonds, this loan being issued in that shape, and for this reason no stamp duty or transfer fee is filled in on the contract note, neither being necessary. Had Mr. Blakemore purchased a registered loan or registered shares such charges would have been made, and he would have received for execution a transfer in the form indicated in Part III, Chap. IV. There would be no material change of procedure in the case of a *sale* on the part of a client instead of a *purchase* as here described. The broker would go to the jobber in the same way, but instead of buying of him, would sell to him at the lower price quoted, or as much better as he could squeeze out of the jobber. The contract would be rendered in the same form, except that in the case of sale of registered stock or shares stamp duty and transfer fee would not be charged, it being the custom for these to be charged to the purchaser. On or before the settling day Mr. Blakemore would hand to his brokers the bonds or certificate as the case might be, and in the latter event would receive for execution (this time as transferor) a deed of transfer, in exchange for which he would in due course receive a cheque from the brokers.

Thus far we have dealt with a straightforward transaction such as an ordinary purchase or sale of stock. A great part of the business transacted on every Stock Exchange consists of dealings of this description; a still greater part of the business transacted, however, consists of speculative operations, and in this connection the system of half-monthly accounts to which we have alluded must be borne in mind. We will assume that Mr. Blakemore experiences the desire of having a "flutter", as he would put it, in Rand Mines shares. Mr. Blakemore thinks that these shares are more likely to rise than to fall in price in the immediate future, and he instructs his brokers to purchase for him, say, 1000 shares at not more than £8 each, the quoted price being $7\frac{15}{16}$–$8\frac{1}{16}$. The bargain is effected at the price named, and Mr. Blakemore receives a contract in precisely the same manner as in the City of Victoria Loan transaction. Thus far, in fact, there is nothing to distinguish this bargain from that. But although the contract note states "for payment on 29 October, 1911", Mr. Blakemore has not the slightest intention of paying for the shares on that date; he has entered into this transaction as a speculator, with the full intention and knowledge of its being a gamble. He has bought on, say, 16 October, and as all transactions entered into between that date and, say, 24 October (not the 27th, be it noted; the reason for this will be explained later on) will be for settlement on the next account day, i.e. 27 October, if he should have the good fortune to be able to sell the shares at a higher price before the date named, his brokers will have to remit him a cheque for the difference. While they will have had to pay for his account the sum of £8000, they will have received on the same day in respect of the same shares sold at, say, $8\frac{1}{8}$, the sum of £8125, so that Mr. Blakemore would receive a cheque for £125 less merely Messrs. Dodd & Jones's commission. Incidentally it might be mentioned that he will only have to pay one commission, for where shares are bought and sold during one account it is not customary to charge more than one commission; furthermore, Mr. Blakemore would not have to pay for the stamp and fee mentioned on the contract note, as, the shares never having been transferred into his name, this expense would not be incurred.

If, however, in order to make a profit the speculator were dependent upon the price rising during the short interval between his purchase and the close of the account, it would be of too hazardous a nature to be worth doing. This is obviated by the institution of "carrying over" or "continuing" a bargain. One of three things must happen to our speculator. The price of Rand Mines, the shares he has bought, will remain unchanged; or it will rise; or it will fall. Let us assume the second contingency, and that the price rises $\frac{1}{8}$ (2*s.* 6*d.*) per share. According to the contract note rendered him, our speculator has to pay for the shares on 27 October. As the adjustment of each settlement takes three days, however, the last of which is the actual settling day or pay day, as it is sometimes called, one ceases in the ordinary way to be able to buy or sell for settlement on that day by noon on the first of the three days of the settlement. Bargains transacted after that hour are for the following account or for "new time", as it is often termed. Consequently, by 24 October, our "bull" of Rand Mines will have to inform his brokers what he intends doing, for in the absence of any instructions from him they will naturally assume that he is going to take up the shares and pay for them. If, however, he is of opinion that the chances of a rise preponderate, he will most likely inform his brokers that he wishes to carry over. They will accordingly arrange for the settlement of the transaction to be postponed to the next account. The procedure by which this is effected is very complicated, and it is unnecessary to enter into any long explanation. What it amounts to is that the amount which the bull speculator should have paid for the shares is advanced temporarily against the security of such shares at a rate of interest governed by the value of money at the time, such charge being

known as a "contango". These contangoes are the short loans in which so much of the funds of the big banks are employed. As the banks, naturally enough, will never lend the full market value of the stocks and shares deposited as collateral security for the loans, someone has to lend the difference, and this is done by various large Stock Exchange firms and others who, of course, receive interest as their remuneration. In carrying over, however, a fresh transaction is deemed to have been entered into, and Mr. Blakemore will receive from his brokers a carry-over note, the wording of which will be something like the following:—

DODD & JONES.

Warnford Court, Throgmorton Street,
LONDON, E.C.,
and the Stock Exchange,
17th October, 1911.

To *Walter Blakemore, Esq.*,
The Elms,
Highgate Grove, N.

We have this day continued for you, subject to the Rules, Regulations, and Customs of the London Stock Exchange—

Sold for Account, *27th October, 1911.*				*Bought* for Account, *10th November, 1911*			
Amount.	Stock.	Price.	Total.	Rate.	Total.	Contract Stamp.	Total.
1000	Rand Mines	$8\frac{1}{8}$	£8125 0 0	5 % + 6*d.*	£16 13 4 25 0 0	 £0 3 0	 £8166 16 4

Carried over either in the market, or with our clients, or with ourselves.

DODD & JONES,
Members of the London Stock Exchange.

The prices inserted in this carry-over note will be the "making-up price", which is the price fixed by the jobbers at the end of every account for this purpose, such prices being the middle between the buying and selling price. Had the price of the Rand Mines shares risen to, say, $8\frac{1}{4}$ during the account, and had Mr. Blakemore, still anticipating a further ri e, decided not to close the transaction but to carry over, he would, on the settling day, have received a cheque for the difference in the value of the shares as purchased by him at 8 and the carrying-over price, say $8\frac{1}{4}$, less any small charge made by the broker; but the transaction would be continued at the price of $8\frac{1}{4}$, in other words, he would be deemed to be a purchaser at $8\frac{1}{4}$, so that if on the following settling day the shares were $8\frac{1}{8}$, Mr. Blakemore would now have to pay to his brokers the difference between $8\frac{1}{4}$ and $8\frac{1}{8}$, plus, of course, a contango, after which he would be deemed to be a purchaser at $8\frac{1}{8}$. And so the transaction would go on, the speculator receiving or paying out differences as the case might be, until he closed the transaction by selling the shares.

On the other hand a speculator, being of opinion that a share or security was more likely to go down in price than up, might sell a quantity of it in the expectation of being able to repurchase at a lower price. This operation is known as "bearing", as opposed to "bulling". We will assume that our speculative merchant, having studied more or less carefully American conditions, decides that the American iron and steel industry is in a bad way and likely to become worse, and that, as a natural consequence, the price of United States Steel Trust shares is more likely to fall than to rise. He decides, therefore, to "go a bear" of these shares, and instructs his brokers to sell 500 of them at the current price of, say, 80 per cent. If, before the expiry of the account, our speculator buys back the shares he has sold, he has closed the transaction, and receives from, or pays out to, his brokers the difference. If, however, he desires to carry over, he instructs his brokers to this effect. Now, however, it is not a case of having to defer payment of a sum of money, but one of having to defer delivery of shares sold, so that what the bear operator requires is not the loan of money, but the loan of shares. As, however, there are at the same time a number of bulls of the same shares who are paying for the privilege of not having to take delivery of these shares, it is quite likely that the bear who carries over will be paid money at the ruling rate for the stock he is carrying over instead of having to pay anything for the privilege. It does, however, sometimes occur that there is a preponderance of bears in a stock, in which case the speculator for a fall has to pay

something for the loan of stock, such payment being known as a "backwardation". At the end of each account, of course, he receives a carry-over note in terms of which he has sold the same amount of stock or shares at the new making-up price.

Options

Dealing in options is more in vogue on the Stock Exchanges of America and the Continent than on similar institutions in this country, but is engaged in by a number of Stock Exchange operators, and particularly by foreigners. An individual who purchases an option buys the right to *purchase* certain shares or stocks at a fixed price on a certain date, in which case it is known as a "call" option; or he purchases the right to *sell* a certain amount of stock or shares at a certain price on a fixed date, in which case it is known as a "put" option; or he purchases the right to buy *or* sell, as he may elect, a certain number of shares at a fixed price on a certain date, in which case it is known as a "put and call" option. Prices of options are published by the financial papers, and the following is a specimen list:—

OPTION PRICES

Put or Call for	End July	End Aug.	End Sept.
Consols	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Peruvian Pref.... ...	$1\frac{1}{8}$—$1\frac{3}{8}$	$1\frac{3}{8}$—$1\frac{5}{8}$	$1\frac{5}{8}$—$1\frac{7}{8}$
Amalgamated Copper..	$2\frac{1}{2}$	$3\frac{1}{8}$	$3\frac{5}{8}$
Anaconda	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
Atchison	$2\frac{1}{4}$	$2\frac{3}{4}$	$3\frac{1}{4}$
Canadian Pacific ..	$3\frac{3}{4}$	$4\frac{3}{4}$	$5\frac{1}{4}$
Eries	$1\frac{3}{4}$	2	$2\frac{1}{4}$
Reading	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Southern Com. ...	$1\frac{5}{8}$	$1\frac{7}{8}$	$2\frac{1}{8}$
Southern Pacific ...	$2\frac{5}{8}$	$3\frac{1}{8}$	$3\frac{5}{8}$
Union Pacific	$3\frac{1}{4}$	4	$4\frac{3}{4}$
United States Steel ..	$2\frac{5}{8}$	3	$3\frac{9}{16}$
Chartered	1/6	1/9	2/
De Beers	$\frac{11}{32}$	$\frac{13}{32}$	$\frac{15}{32}$
East Rand	2/6	3/	3/6
Gold Fields	3/3	3/9	4/3
Rand Mines	3/6	4/	4/6
Randfontein	2/3	$2/7\frac{1}{2}$	3/

⁂ The put and call is double the above quotations.

From this list it will be seen that an individual by paying $3\frac{9}{16}$ dollars per share can buy the right to purchase shares in the United States Steel Trust Corporation at the end of September at the price current at the date of the purchase of the option. Of course, for this operation to show a profit, the purchaser of the option would require to see the price of United States Steel Trust shares rise more than the amount per share he had had to pay for the option, plus the broker's charge.

Options give rise to some of the most complicated operations possible. For instance, an individual who had, in the manner described, purchased a call option for the end of September on United States Steel shares might, in the middle of August, sell a similar number, i.e. "bear" a similar number, feeling that he was protected by his option. As, however, he could not exercise his option until the end of September settlement, he would have to carry over until then just as though he were unprotected by any option; and he might deal one way or the other, that is to say, sell for the fall or buy for the rise two or three times before his option became due.

The Days of the Settlement

We have already stated that the settlement occupies three days. In reality, four days are devoted to the settlement, the first one being the Mining contango day, for on that day the making-up prices in mining shares are fixed, and the carrying over of bargains in those securities is arranged. This day is not, however, part of the settlement in any other class of security, and the only reason for its institution was that some years ago business in mining shares attained such dimensions that it was found necessary to fix a special day for the mining carrying over to avoid a congestion of business on the ordinary carrying-over day.

The second day of the settlement is the general contango or making-up day, on which making-up prices are fixed and the carry-over arranged in all other securities, except, of course, Consols, which, as already stated, have a monthly settlement all to themselves. On the carry-over day the brokers draw up statements showing the balance of their transactions with the different jobbers during the account, i.e. total up the various purchases and sales they have carried through with each jobber, and make out a list of the amount they have to pay or the stocks they have to deliver on balance to the said jobber. These statements are then checked by the jobber. On this day also is arranged the carrying over of such transactions as clients wish to continue.

The next day is known as ticket day or name day, and the brokers hand over to the different jobbers slips of paper on which are written the names and addresses of those of their clients who have bought securities during the account, together with particulars of the purchase price, so that the necessary deeds of transfer may be prepared. The jobber to whom these tickets are handed may not himself be in possession of the securities, for it is quite possible that during the account he has bought them from another jobber or from a broker;

but in this case he writes on the back of the ticket the name of the person from whom he bought the stock, and passes it on until it at last gets into the hands of the broker whose client does hold the certificate, and it is for this reason that the transfer deed which is sent to a purchaser of stock for execution does not necessarily mention the correct price paid by the transferee. Many people, when they see a less amount than that which they are paying mentioned as purchase consideration, think they have been swindled; but, owing to the circumstances here described, it does not at all follow that the consideration-money entered in the deed represents the particular transaction of the person who signs the deed, and a note to this effect is printed at the foot of every transfer deed. In the case of bonds or shares to bearer, all this procedure is of course unnecessary, no transfer deed having to be prepared.

The final day of the account, known as settling day or pay day, is that on which all payments arising out of business transacted during the account, whether they be payments for stock bought or sold or the liquidation of differences on speculative transactions, have to be made.

Buying In

It sometimes happens that a broker who has bought stock is not able to obtain delivery from the seller. If delivery is not effected within ten days of the settling day, the stock may be "bought in"; that is to say, the broker who claims delivery is entitled to go to the official buying-in department of the Stock Exchange and insist upon the necessary quantity of stock being bought by them on the open market, the person due to deliver the stock being charged with the difference between the price at which he sold and that which has had to be paid for it, plus commission. On the other hand, if a client does not pay for stock when due, and delivery is offered, such stock may be sold on the open market through the same channel, the client having to bear any loss.

Special Settlement

Stocks and shares are not handled at the ordinary settlement until there has been a special settlement in them. New shares and loans are constantly being issued, and, except in the case of actual cash transactions, bargains in such new securities immediately after the issue, until such time as the necessary Stock Exchange formalities have been complied with, are for special settlement, which means that the Stock Exchange Committee fixes a certain day on which all transactions under this particular security have to be adjusted. When this special settlement is once over, the security is handled in the ordinary manner, bargains being settled on the ordinary settling days.

NEW ISSUES

Fresh Stock Exchange securities are continually being offered to the public, and a day seldom passes without a number of such new issues being advertised. It may be a Government or Municipal Loan, it may be a Debenture issue by an old established Railway Company or an Industrial Company, it may be an issue of debentures and shares simultaneously, it may be an issue of Preferred shares or Ordinary shares in a well-established concern, or it may be what is known as a wild-cat proposition, namely, an attempt to get from the public money to pursue some highly speculative business, or indeed something hopeless from the outset, as in the case where some shady company promoters endeavour by this means to foist on to the public for several thousands of pounds as a likely mining venture, a bit of worthless land which has cost them perhaps a few hundreds. Included in such advertisements is usually an application form, which the would-be investor is required to fill up and forward to the bank or to an issuing house with a remittance. At the same time thousands of prospectuses, each with its application form, are posted to likely investors whose names are obtained from a variety of sources—principally from the annual return which every company has to make to the proper authorities indicating the names and addresses of its shareholders. With the application has to be sent a remittance equivalent to an initial payment of so much per £100 of stock, or so much per share. This is necessary as a guarantee of good faith. Within a day or two after the closing of the lists applicants receive an intimation that so much stock or shares has been allotted to them. If the issue has not been over-subscribed, applicants are naturally allotted all the stock or shares they have applied for; if, however, the loan is over-applied for, it is manifestly impossible to allot to each applicant the amount of stock he has asked for. In such a case the persons responsible for the issue might select a certain number of applicants and grant their demands in full, or they might allot a reduced quantity, say 60 per

cent of the amount applied for, to each applicant or to various classes of applicants (for example, individuals applying for £200 and less might be granted allotments in full, those applying for £1000 might receive 70 per cent of the amount applied for; and so on), or they might just select a certain number of applicants, grant their demands in full, and refuse all the remainder. Those individuals receiving full allotments would receive a stamped letter of allotment, with an intimation of the dates on which the remaining instalments had to be paid, such dates having already been mentioned in the prospectus. In the case of those applicants receiving only a certain percentage of the stock applied for, this fact would be intimated to them, and as the first instalment (known as application money) would have been in excess of that actually required, they would be informed of the reduced balance due from them in respect of the second instalment, which is always payable "on allotment". In the case of those applicants to whom it had been decided not to allot any stock, an intimation to this effect (known as a letter of regret) would be forwarded, and at the same time the original cheque for the application money would be returned to them, or, if it had already been cashed, a fresh cheque for the full amount would be forwarded. The balance of the subscription price of the stock or shares would be payable at fixed intervals.

In cases where the terms of issue are exceptionally attractive, and it is known that there will be an over-subscription, thousands of people apply with the mere intention of getting an allotment of as much stock as possible and of immediately selling it at a premium. Such individuals are known as "stags", and as it is the desire of every house making these issues to place them in the hands of *bona fide* investors, they naturally do all they can to avoid allotting stock to such individuals. It is not always easy to distinguish between a stag and a *bona fide* investor, and many brokers get their clerks to send in various applications for small amounts of such loans in the hope that they may receive an allotment. Needless to say, these remarks apply only to the few cases in which so favourable a reception at the hands of the investing public is almost assured at the outset. In the majority of new issues this is not at all the case, and the public does not subscribe for more than a very small portion of the loan or shares offered.

Underwriting

To ensure against failures of this description, most new issues are underwritten. That is to say, the issuing house or the promoters pay a certain commission to a number of individuals who subscribe the issue, engaging to take and pay for in a fixed proportion the stock or shares that the public does not apply for. The amount paid for such underwriting varies according to the class of the security and the likelihood of its being subscribed by the public. In the case of a first-class loan it may be 1 per cent; in the case of speculative shares it may be as high as 6 per cent, or even 10 per cent. Should the issue be a complete success, the public taking it all, the underwriters are wholly relieved of the obligation, and merely take their commission; should the public take, say, 50 per cent of the loan or shares, each underwriter is called upon to take 50 per cent of the amount he has underwritten, he of course receiving his commission on the full amount underwritten by him. Good underwriting is a most profitable business, and is much sought after.

New issues have a certain popularity with the public, possibly because they feel that it is an opportunity of obtaining investments at bottom price. This is by no means always correct, for so much depends upon the security of the stock issued and, in the case of a Company, whether it has been over-capitalized or not; still, the person applying for and receiving stock or shares in this manner has the satisfaction of feeling that he has not to pay brokerage or stamp duty. It is the custom for issuing houses to pay the brokers a commission, usually ¼ per cent, in respect of all applications received bearing the impression of a broker's stamp on which stock or shares are allotted.

MARKETS AND QUOTATIONS

In connection with the Stock Exchange the term "Market" may mean a particular portion of the Stock Exchange building which is frequented by the dealers in one particular group of securities, or it may mean the dealers themselves. One may say, for example, that the Kafir market was short of stock, which would mean that the jobbers making a speciality of transactions in South African mining shares had as a whole sold more shares than they possessed. In another sense, the term market may be used to denote the individual jobber or firm making a speciality of a certain security; as, for example, one might say that Jenkins & Smith were the market in Maypole Dairy shares.

Amount.	Present Amount.	Interest Due.	When ex-d. or ex-int.	Per Cent.	NAME	3–30 Quotations, June 19.	Business done for Money or Ordinary Account.
£ 565,986,066	£ 565,986,066	5 Ja. Ap. Jy. Oc.	2 June	2½	2½ % Consolidated Stock, Redeemable on or after 5 April, 1923	79⅝— 79⅞	79¾ 15/16 13/16 ⅞ 13/16 ¾ ⅞ 79⅞ ¾ ⅞ 13/16 ¾ 15/16 ⅞
		5 Ja. Ap. Jy. Oc.	2 June	2½	Do. do. for Account, 5 July ...	79⅝— 79⅞	79 13/16 79 13/16 ⅞ 25/32 13/16 ⅞
		5 Ja. Ap. Jy. Oc.	2 June	2½	Do. do. for Special Dates up to 28 July	79½— 80	
3,904,267	3,904,267	5 Ja. Ap. Jy. Oc.	2 June	2¾	2¾ % Annuities, red. 5 Jan., 1905, or after	86½— 87	86¾
30,154,416	30,154,416	5 Ja. Ap. Jy. Oc.	2 June	2½	2½ % Annuities, red. 5 Jan., 1905, or after ...	77⅜— 77⅞	77⅝
		5 Ja. Ap. Jy. Oc.	2 June	2½	Do. do. for Account, 5 July ...	77⅜— 77⅞	
48,201,444	48,036,420	1 Jan. 1 July	2 June	2¾	Guaranteed 2¾ % Stock (created under Irish Land Act, 1903), Red. on or after 1 Nov., 1933	80¼— 80¾	80¾ 9/16
		1 Jan. 1 July	2 June	2¾	Do. do. for Account, 5 July .	80¼— 80¾	80⅝
4,000,000	4,000,000	1 Jan. 1 July	2 June	3	Guaranteed 3 % Stock (created under Irish Land Acts, 1903 & 1909), Red. on or after 3 Dec., 1939	88¾— 89¼	89⅛
		1 Jan. 1 July	2 June	3	Do. do. for Account, 5 July .	88¾— 89¼	
10,000,000	1,000,000	18 Ja. Ap. Jy. Oc.	...	2¾	Exchequer 2¾ % Bonds (redeemable 1912-15) .. .	99¾—100¼	
6,000,000	4,781,700	14 Ja. Ap. Jy. Oc.	...	3	Do. 3 % Bonds, Red. 14 Oct., 1912 . . .	100¼—100½	
21,000,000	21,000,000	5 Ja. Ap. Jy. Oc.	.	.	Do. 3 % Bonds, Red. 5 April, 1915 .	100¼—100½	100⅜
73,603,813	71,058,813	5 Ja. Ap. Jy. Oc.	2 June	3	Local Loans Stock, not redeemable before April, 1912	92½— 93	92½ ⅝ ¾ ½ ⅞
		5 Ja. Ap. Jy. Oc.	2 June	3	Do. do. for Account, 5 July . .	92½— 93	
450,000	450,000	1 Jan. 1 July	2 June	3	Metropolitan Police 3 % Deb. Stock, 1920 .	93 — 95	
1,700,000	1,700,000	1 April 1 Oct.	1 April	4	Canadian Gov. Bds. Red. 1 Oct., 1913 Gua. by Imp. Gov.	100 —102	101⅞ 101⅞
9,424,000	7,414,700	1 Mar. 1 Sept.	1 Mar.	3	Egyptian Government 3 % Guaranteed Loan . . (g)	95 — 97	
6,023,700	5,292,200	1 April 1 Oct.	1 April	2½	Greek Guar. Gold Loan of '98, Nos. 1 to 60,237 (g)	82 — 84	
600,000	600,000	1 Jan. 1 July	2 June	3	Mauritius 3 % Ins. Stock, 1940 Guar. by Imp. Gov. ..	90 — 92	
35,000,000	35,000,000	1 May 1 Nov.	4 April	3	Transvaal Gov. 3 % Guar. Stock, Red. 1923-53 (Guar. by Imp. Gov.)	93 — 94	
		1 May 1 Nov.	4 April	3	Do. do. for Account, 5 July . ..	93 — 94	
5,000,000	5,000,000	1 Jan. 1 July	2 June	3	Do. 3 % Gua. Stk., 1958, Gua. by Imp. Govt.	92½— 93½	
		1 Jan. 1 July	2 June	3	Do. do. for Account, 5 July . .	92½— 93½	
5,000,000	3,815,[illegible]0	1 Feb. 1 Aug.	1 Feb.	4	Turkish Guaranteed Loan, 1855 (4 %) ... ... (h)	105 —107	
14,553,000	14,553,000	5 April 5 Oct.	17 Mar.	9	Bank of England Stock	249 —254	252½ 2
2,769,231	2,769,231	1 Feb. 1 Aug.	21 Jan.	12	Bank of Ireland Stock	287 —292	
88,159,837	85,078,318	5 Ja. Ap. Jy. Oc.	2 June	3½	India 3½ % Stock, Red. on or after 5 January, 1931 ..	93¾— 94¼	93¾ 4 3⅞ 4⅛ 3¾ 4 ⅛ 4 3 15/16 4⅛ 3⅞
		5 Ja. Ap. Jy. Oc.	2 June	3½	Do. do. do. for Account, 5 July	93¾— 94¼	
3,500,000	3,500,000	5 Ja. Ap. Jy. Oc.	. .	.	Do. do. do. Iss. at 96 % Scrip, all paid . .	94½— 95	
66,749,725	66,724,530	5 Ja. Ap. Jy. Oc.	2 June	3	Do. 3 % do. do. on or after 5 October, 1948 .	80½— 81	80⅞ 1 80⅞ ¾ ⅝
		5 Ja. Ap. Jy. Oc.	2 June	3	Do. do. for Account, 5 July .	80½— 81	80 15/16
11,900,000	11,892,207	5 Ja. Ap. Jy. Oc.	2 June	2½	Do. 2½ % do. do. on or after 5 October, 1926 .	67¾— 68¼	67⅞
		5 Ja. Ap. Jy. Oc.	2 June	2½	Do. do. do. for Account, 5 July, ...	67¾— 68¼	68 1/16
4,000,000	4,000,000	12 April 12 Oct.	12 April	23/6	Do. 3½ % Bonds, Scrip, fully-paid (Red. 1911-18) (b)	100½—100¾	
...	...	Various dates	..	3½ (a)	Indian Rupee Paper 3½ %, Rx. 4,411,730	63½— 64½	
...	...	30 June 31 Dec.	..	3½ (a)	Do. 3½ %, 1854-5, Rx. 7,848,310 . .	64 — 65	
...	..	30 June 31 Dec.	...	3 (a)	Do. 3 % (1896-7) 1916, Rx. 408,240	52 — 54	
230,000	123,200	1 Feb. 1 Aug.	1 Feb.	3½	Isle of Man 3½ % Debs. of £500 & £100 1 % Sink. Fund (g)	96 — 98	
100,000	100,000	1 Feb. 1 Aug.	1 Feb.	3	Do. 3 % Debenture Stock, 1919-29	86 — 88	87½

A better idea of the various markets of the Stock Exchange will be obtained by glancing at a specimen list of prices of each section. The London Stock Exchange—and what is said here of the London Stock Exchange applies more or less to all Stock Exchanges of importance—issues an official daily list of prices, the different securities being divided into certain sections. Considerations of space preclude us from giving the various sections in their entirety, but those portions given will be sufficient to indicate the nature of the securities dealt in. The order followed is that of the official list of the London Stock Exchange, which is the order adopted by most of the papers, although the latter only give the prices of those securities in which dealings are sufficiently common to be of public interest, or for which payment is made. We start with the table on previous page. The first column under the heading of "Amount" shows the total amount of the issue that is authorized; the second column headed "Present Amount" shows how much of the authorized total has been issued; the third column indicates the dates on which interest payments are made; the fourth column indicates the date on which the security was last quoted ex-dividend or ex-interest; the fifth column shows the rate of interest paid on the stock; the next column shows the title of the stock, with an indication as to when (if at all) redeemable, although it should here perhaps be mentioned that when it is stated that 2½ per cent Consolidated Stock is redeemable "on or after 5 April, 1923", it means simply that the Government may at its option repay the debt at par, a most unlikely event, of course, so long as the quotation remains below that figure. In the next column are given the prices as at 3.30 p.m. of the different securities, the first or lower price being the jobbers' buying price, and the second or higher quotation being the jobbers' selling price. The last column shows the prices at which those bargains which were "marked" were carried through; once the prime figures (in the first item on the list 79) have been mentioned, the fractions only are mentioned in subsequent markings.

We have given this section of the list in full in order that a complete explanation might be given, but in the remaining sections we only publish the name of the stock and the quotation, as is invariably done by the newspapers, which leave out the authorized and issued amounts, interest dates, &c.

Next come

Corporation and County Stocks—United Kingdom

a section only of which we give.

Cambridge Corporation 3 % Redeemable Stock	1913-43	82—84
Cardiff Corporation 3½ % do. ..	1935	96—98
Do. do. 3 % do. ..	1914-54	82—84
Do. do. 3½ % do. ..	1925-65	97—99
Cheltenham Corporation 3 % do. ..	1971	81 83
Chichester Corporation 3 % do. ..	1916-46	79—81
Coventry Corporation 2¾ % do. ..	1917-57	75—77
Do do. 3 % do. ..	1920-60	82—84
Croydon Corporation 3½ % Stock		96—98
Do. do. 3 % Redeemable Stock ..	1940	84—86
Do. do. 3 do., 1900	1940-60	83—85

The next section which follows is that of

Colonial and Provincial Government Securities

divided respectively into those issued in the shape of bearer bonds and those which are registered and inscribed. The following are the two lists:-

Alberta (Prov. of) 4 % Sterling Debs., 1938, Nos. 1-4110	99 —101
British Columbia (Prov. of) 4½ % Sterling Debs., 1917	102 104
British Guiana 4 % Cons. Immigration Loan Bds., 1916	99 —101
Canada (Dominion of) 3½ % Bonds, repayable 1909-34	99½—100½
Do. 3 % Bonds, redeemable 1938	93 — 94
Do. Can Pac. Rly. 3½ % 50-yr. Ld. Gnt. Bds., 1938	100 - 102
Do 4 % Debs., Red. 1912 (Conv.), Nos. 1-672 (£1000), 751-1604 (£500), 1651-4485 (£100)	100½—101½
Do. 3¾ % Bonds, 1912 (Convertible)	100 - 101
Do. 3¾ % Bonds, 1914-19 (Convertible)	102 103
Cape of Good Hope 4½ % Debentures	100 — 102
Do do. 4½ % Debentures of 1879	100 — 102
Do do. 4 % Debentures of 1881 . ..	99 —101
Do. do. 4 % Bonds of 1882, [1917-23]. ..	101 —102
Do. do 4 % 4-yr. Debs., Red. 1 July, 1911 ..	101 —102
Do. do. 4 % 10-yr. Debs., Red. 1 Oct., 1917 Nos. 1 500 (£1000), 501-900 (£500), & 901-3900 (£100)	101½—102½
Ceylon 4 % Debentures	100 —102
Fiji 4½ % Debentures .	100 —102

REGISTERED AND INSCRIBED STOCKS

No Stamp duty payable except for Dominion of Canada. Canadian Pacific Railway 3½ % Land Grant Stock, and South Australian Government 3¾ % Stock. (½ % on amount of Stock.) Red.

Antigua 4 % Inscribed Stock . ..	19	19-44	100 —102
Barbados 3½ % Inscribed Stock ..	19	25-42	95 97
British Columbia (Prov. of) 3 % Insc Stock .		1941	82 - 84
British Guiana 4 % Inscribed Stock		1935	102 —104 xd
Do. do. 3 % do. .	19	23-45	84 — 85
Canada (Dominion of) 3½ % Stock, Regd.	19	09-34	99½—100½
Do. 3 % Stock, Registered		1938	91½— 92½
Do. 2½ % Inscribed Stock .. .		1947	77½— 78½
Do. Can. Pac. Ry. 3½ % 50-yr Ld. Gnt. Ins Stk.		1938	99 —101
Do. 3½ % Registered Stock .. .	19	30-50	99½—100½
Do. 3¾ % Stock		1912	100 —101
Cape of Good Hope 4 % Stk. Regd. (1882)	19	17-23	101 —102
Do. 4 % Inscribed Stock (1883) ..		1923	102 —103
Do. Consolidated 4 % Stock, Ins.	19	16-36	101½—102½
Do. do. 3½ % Stock, Ins.	19	29-49	98½— 99½
Do. do. 3 % Stock, Ins	19	33-43	86½— 87½
Ceylon 4 % Inscribed Stock		1934	107 —109
Do. 3 % do.		1940	85½— 86½
Do. 3½ % do.	19	34-59	97 — 99

The dates of redemption shown in these securities are the dates on which the loans are actually repayable and not (unless expressly indicated) merely at the option of the borrowing Government.

The next section of the list is so long that we merely give a portion of it which relates to

Corporation Stocks—Indian and Colonial

Auckland (City of) 6 % Bonds, 1872 .. 19	14-24	104 —112
Do. 6 % Cons. Bds., 1879, £100, £200, & £500	1930	117 —119
Do. 5 % Debentures, 1883	1934-8	107 —109
Do. 4 % Consold. Loan Debs, Nos. 1-3097	1931	100 - 102
Auckland and Sub. Drain. Bd., 4 % Dbs., 1-1000	1930	98 —100
Auckland Harbour Board, 6 % Debentures ..		101 —103
Do. do. 5 % Debentures	1917	102 —104
Do. do. 5 % do. Nos. 1-1000	1936	104 —106
Do. do. 4½ % 20-yr. Bds., Nos. 1-2500	1929	102 —104
Calcutta (Commiss. for Port of) 4 % Sterling Debentures, Nos. 1-5000	1938	97 — 98
Do. do. do. Nos. 1-7000	1939	98½ - - 99½
Calgary (City of) Sterling 4½ % Debentures, Nos. 1-632, 634-1331, and 2001-2153	1937-8	105 —107
Do. Sterling 4½ % Debs., Nos. 1-1248 19	28-37	103 —105
Do. do. do. Nos. 1-3254 19	30-40	105 — 107
Cape Town (C of) 4% Dbs. (Iss of 1893 & 1896) .	1943	100 - 102
Do. do. 3½ % Debentures	1948	89 - 91
Do. do. 4 % Inscribed Stock ..	1953	99 —101
Cape Town Sub. Mun. Wtrwks. 4 % Insc. Stk. ..	1951	98 —100
Christchurch (N.Z.) District Drainage 6 % Loan	1926	119 -121

Some of these are issued in the shape of registered and inscribed stock, others as bearer bonds, but this is generally indicated.

The next heading is

Corporation Stocks—Foreign

Aarhus (City of) 4 % Bonds, 1909, Nos. 1-200 (£500), and 201-4200 (£100)	92 — 94
Alexandria (City of) Sterl 4 % Bonds, 1-342 of £500, and 343-3760 of £100 (Guaran. by Egypt Gov.)	101½ 102½
Amsterdam (City of) 3 % Bonds . .	89 92
Baku (City of) 5 % Gold Loan, Nos 1-20,000 (£20), 71,433-75,032 (£100), 84,293-84,372 (£500) .	97 98
Bello Horizonte 6 % Bonds of 1905 (£20), Nos 1-11,250 (Guar. by State of Minas Geraes) ..	103 --105
Bergen (C. of) 4 % of 1901, 1-273 (£500), 274-2213 (£100)	98 -100
Do. 4 % Loan, 1909, A 1200 (£500), B 201-3058 (£100)	97 99
Budapest (City of) 4 % Sterl. Bds., A 1-450 (£1000), B 1-1500 (£500), C 1-5500 (£100), D 1-12,500 (£20)	91 — 92
Buenos Ayres (City of) 4½ % Bonds . .	95 - 97
Do. 5 % Loan, 1909 (London Issue), Nos. 14,405-28,809 (£20), 34,810-40,809 (£100), 43,810-45,809 (£200), 45,810-46,009 (£1000) .. .	102½ - 103½
Christiania (City of) 4 % Sterling Loan, 1900 .	100 102
Constantinople (City of), Mun 5 % Loan, 1909 (Gtd. by Ott. Govt.), Nos. 1-10,000 (£20), 10,001-35,000 (£100), 35,001-50,000 (£500)	101 102 xd
Copenhagen (City of) 3½ % Bonds of 1898, Nos 1-5250 of £100, and 5251-5850 of £500	88 — 90
Do. 3½ % Bonds of 1887	85 - 87 xd
Do. 4 % Bds. of 1901, 1-600 (£500), and 1-8000 (£100)	98 - 100
Do. 4 % 1908, A 1-8000 (£100), B 8001-10,800 (£500)	98 - 99
Do. 4 % 1910 (£500, £100, and £20), Nos. 1-31,400 .	98 — 99

These are much the same as British stocks, except that being distant and less under observation, and moreover not being trustee securities in this country, they are usually cheaper and give a higher yield. Whilst in connection with the United Kingdom and most foreign countries the term "corporation" stock means a loan issued by a municipality, the word "corporation" is employed in the United States and Canada to indicate a company—a difference that can easily, and indeed does frequently, lead to confusion.

We then reach

Foreign Stocks, Bonds, &c.

Chinese 7 % Silver Loan, 1894, Nos. 1-21,800 ..	83 — 84
Do. 6 % Gold Loan, 1895, Nos. 1-30,000	105 —106
Do. 6 % Gold Bonds, April, 1895	105 —106
Do. 5 % Gold Loan, 1896	102¾—103¼
Do. do. Registered	102 —104
Do. 4½ % Gold Bonds, 1898	101 —101½
Do. 5 % Imperial Railway Loan Bonds, 1-23,000	104½—105½
Do. 5 % Gold Loan, 1905, Nos. 1-10,000	102 —104
Do. Gold Loan of 1908 (Interest 5 % till Oct., 1923, 4½ % after)	102½ --103½
Do. Imp Chinese Rlys. (Shanghai-Nanking Line) 5 % Sterling Bonds, Nos. 1-29,000	102 --103
Do Imp. Chinese Railways (Canton-Kowloon Rly.) 5 % Sterling Bonds, Nos. 1-15,000	103 —104
Do 5 % Tientsin-Pukow Railway Loan, Nos. 19,501-38,000	102½—103½
Do 5 % Tientsin-Pukow Railway Supplementary Loan, Scrip, fully-paid ..	102 —103
Do. 5 % Shanghai-Hangchow-Ningpo Railway Loan, Nos. 1-15,000 ..	102 —103
Colombian Con. Ext. 3 % Bonds, 1896	49½— 50
Cordoba (Prov. of) Bonds, 2½ to 4 % wtn. 1-1984 (£100) of 1887, and 1-2952 (£100) and 2953 3552 (£500) of 1889	45 — 47
Corrientes (Prov. of) 6 % Ext. Gd Loan, 1910 (London Issue) (£100 and £20) wtn. 1-3441	99 —101
Costa Rica 5 % "A" Bonds	51 — 52
Do. 5 % "B" do.	44 — 45
Greek 5 %, 1881	55½— 56½
Do. 5 %, 1884	54½— 55½
Do. Monopoly 4 %, 1887	51½-- 52½
Do. 4 % Rentes, 1889	41½— 42½
Do. 5 % 1890 (Piræus Larissa Railway) . .	53 - 54 xd
Do 5 % Funding Loan, 1893, A 1-3095 of £100, B 3096-7098 of £20 each . ..	51½— 52½
Do. 4 % Railways Loan (1902) .	91 — 92
Do. 5 % Nat. Ln., 1907, Nos 1-60,000 (£4), 60,001-120,000 (5/ £4), 120,001-200,000 (10/ £4)	101 -- 102
Guatemala Ext Debt. 4 % Bds, 1-230 (£1000), 251-730 (£500), 751-10,875 (£100), 10,951-14,946 (£20)	43 - - 44
Honduras Government Railway 10 % Loan, 1867	
Do. Council Fn. Bdhrs Cts. of Dep. . ..	11¼ 12¼
Do. Government Railway 10 % Loan, 1870	.. --
Do. Council Fn. Bdhrs. Cts. of Dep	11¾ 12¼
Hungarian Gold Rentes, 1881-88-92 ..	94½— 95½
Do. 3 % S. G. Loan, 1895 A 1-8000 of £20, B 1-12,650 of £100, C 1-900 of £500	77 79
Italian Irrigation Guaranteed 6 % .. .	114 117
Do 5 % 1862 Maremmana Railway	100 —102
Japan 4 % Sterling Loan	92 92½
Do 4½ % Sterling Loan .	100 —100½
Do. 4½ % do (2nd Series)	100 —100½
Do. 4 % do. of 1905 . .	93 — 93½
Do. 5 % do of 1907 ..	104 --104½
Do. 4 % do of 1910 .. .	90¾— 91¼
Liberian Extl. Bonds of 1871 (5 %)	91 — 93
Do 6 % Customs Loan of 1907, Nos 1-5000 .	101 —103
Mexican Internl. 5 % Cons. Silver Loan, 1894, Series I to V	48 -- 50
Do. 5 % Ext Cons Gold Loan (1899)	100½—101½
Do 4 % Gold Loan, 1904, Exchange of $4·86 ..	90 — 92
Montenegro 5 % Government Loan, Nos 1-1750 (£100), and 1751-5500 (£20)	97½— 98½
Nicaragua Railways Mt. Bonds, 1886, 1-2850	80 - 84
Do. 6 % Sterling Loan, 1909, Nos. A 1-100 (£500), B 101-4100 (£100), and C 4101-22,935 and 23,182-34,613 (£20)	97½— 98½
Norwegian 3 % Conversion Loan, 1886 .	82 - 84
Do do. do, 1888 .	82 — 84
Do. 3½ % 1894, Nos. 1-56,461 .	98 —100
Para (State of) 5 % Gold Bonds . . .	99 --100
Do. 5 % Sterling Bonds (1907)	98½ -- 99½
Paraguay 3 %, 1886	55 -- 56
Do 3 % Bonds of 1886-96	55 - 56
Portuguese External 3 % 1st Series . ..	67 - 68
Russian 5 %, 1822, £ Sterling	124 - 128
Do. 3 %, 1859	77 80
Do. 4 % (Nicolas Railway) 1867-9 . .	93 - 95
Do. 3 % (Transcaucasian Railway) 1882	79 — 83 xd
Do. 4 % Con. R. R. Bonds, Series I, 1889 ..	97½ 97¾
Do do. do. do. II, 1889 ..	97½ -- 97¾
Do. do. do do. III, 1891 .	94 -- 97
Do. 4 % Rentes (1894), Series 1-265 . ..	93 -- 96 xd
Do. 3½ % Bonds, Nos. 1-800,000	89 — 91
Do. 4 % Loan (Dvnsk and Vtbsk) 1-151,312 (£20)	92 — 94
Do. 5 % Loan, 1906, Series Nos. 274-339 . ..	104½—104¾
Do. 4½ % Loan, 1909 (London Issue) . ..	102½— 102¾
Salvador (Rep. of) 6 % Sterl. Bonds, Nos. 1-10,000	99½ —100½
San Luis Potosi 6 % Sterling, 1889	101 —103

San Paulo (Brazil), Prov. of, 5 %, Sterling, 1888 ..	100 —102
Do. do. State of, 5 % Bonds, 1899 ..	101 —103
Do. 5 % Treasury Bonds (Gtd. by Brazil) ..	102¾—103¼
Sao Paulo (State of) 5 % Bonds, 1904, Nos. 1-400 (£500), 401-5400 (£100), and 5401-20,400 (£20)	100 —102
Servian 4 % Unified Bonds	89 — 93
Siamese 4½ % Sterling, Nos. 1-5000 (£100), 5001-30,000 (£20)	101 —102
Do. 4½ % Sterling Bonds of 1907, Nos. 1-11,250	101 —102

These are all loans issued by foreign Governments or States. Included in this list are a few Railway debentures, but as they are guaranteed by the Government of the country in which the Railways are situated, and have therefore the same standing as a Government loan, they rightly belong to this section. The different dates placed after the names of the various loans do not indicate the date of redemption, but the date on which the loan was issued. This is found desirable in order to determine the identity of different loans. If a client were to request his broker to purchase him £1000 of the Greek 5-per-cent Loan, the broker would not know whether he referred to the 5-per-cent Loan of 1881 quoted at 55½–56½, or the 5-per-cent Loan of 1884 quoted at 54½–55½. Some of the loans, Russian 5 per cent, 1822, are mentioned as sterling bonds. This means that the interest and capital of the bonds are payable in English currency. The term "gold loan" indicates that capital and interest are payable in that metal, and not in paper or silver currency.

We now come to British Railways. There are so many of these, and the securities are so varied, that this section is subdivided, the first portion dealing with

Railways—Ordinary Shares and Stocks

Barry Ordinary	100	152 —155
Do. Preferred Converted Ordinary (4 %) .	100	85 — 87
Do. Deferred do. do. ..	100	68 — 71
Caledonian Ordinary	100	86 — 87
Do. Preferred Converted Ordinary (3 %)	100	62¼— 62⅜
Do. Deferred do. do. ..	100	24⅞— 25⅛
Do. Deferred Ordinary No. 1 .. .	100	1⅝— 1⅞
Cambrian Ordinary Capital No. 1 .. .	100	2¾— 3¼
Do. Coast Consolidated Ordinary . ..	100	2¼— 3¼
Cardiff Preferred Ordinary Stock, 1896 (4 %) .	100	88 — 90
Central London Ordinary Stock	100	71 — 73
Do. Preferred Stock (4 %)	100	87 — 89
Do. Deferred Stock	100	55 — 57
City and South London Consolidated Ord. Stock	100	31½— 32½

An explanation of what is meant by Ordinary, Consolidated Ordinary, Deferred Stock, &c., has already been given (see p. 25).

A subdivision deals with

Railways—Debenture Stocks

which call for no special comment.

Alexandra (N. & S. W.) Docks and Railway 4 % Perpetual Debenture Stock	100	96— 98
Barry Consolidated 3 % Debenture Stock	100	79— 81
Brecon and Merthyr New "A" Deben. Stock (4 %)	100	95— 97
Do. do. "B" do. (4 %)	100	96— 88
Caledonian 4 % Debenture Stock	100	108—110
Cambrian 4 % "A" Debenture Stock	100	94— 96
Do. 4 % "B" do.	100	89— 91
Do. 4 % "C" do.	100	81— 83
Do. 4 % "D" do. .. .. (b)	100	59— 61
Cardiff 3 % Debenture Stock	100	78— 80
Central London 4 % Debenture Stock	100	104—106
City and South London, 4 % Perp. Debenture Stock	100	102—104
East London, 2nd Chge. 4 % Deb. Stock, Class A ..	100	99—101
Do. 2nd do. do. do. B (b)	100	40— 43
Do. 3rd do. 4 % do ....(b)	100	16— 18
Do. 4th do. 4 % do. ....(b)	100	9— 11
Do. E. L. R. 1st Debenture Stock (3¼ %) ..	100	84— 87
Do. E. L. R. 2½ % (Whtchapl Ext.) Db. Stk.	100	61— 63

The next section relates to

Railways—Guaranteed Shares and Stocks

Caledonian 4 % Guaranteed Annuities Stock ..	100	107—109
Do. 4 % Consolidated Guaranteed ..	100	106—108
Fishguard and Rosslare Railways and Harbours Company Guar. Preference 3½ %	100	95— 97
Forth Bridge Stock (Guaranteed 4 %)	100	106—108
Furness Consolidated 4 % Guaranteed 1881 ..	100	101—103 xd
Glasgow and South Western Guar. 4 % Stock ..	100	105—107
Do. do. St. Enoch Station Rent-charge (4 %) ..	100	105—107
Great Central 1st Preference (4½ %) ..	100	112—114
Do. 3½ % do.	100	81— 83
Do 6 % do.	100	148—151
Do. Irredeemable 5 % South Yorkshire Rent-charge ..	100	123—125
Do. 4½ % South Yorkshire Perp. Rent-charge . ..	100	105—107
Great Central and Mid. Joint Committee, 3½ % Guaranteed Stock	100	95— 97
Great Eastern G.E Consolidated 4 % Rent-charge	100	103—105 xd
Do. G E. Metropolitan Stock ..	100	130—132 xd
Do. G.E Consolidated 4 % Irredeemable Guar. ..	100	105—107

As has already been mentioned, the term "guaranteed" here indicates Cumulative Preference and not that it is guaranteed by any other Company.

The next section deals with

Railways—Preference Shares and Stocks

Alexandra (N. & S. W.), Dks. and Rail. 4½ % 1st Pref. Con. "A"	100	97— 99
Do (N. & S. W.), Dks. and Rail. 4½ % 2nd Pref. Cons. "B"	100	81— 84
Barry 5 % Preference (First)	100	129—131
Do. Consolidated 4 % Preference	100	101—103
Do 4 % Third Preference	100	100—102
Caledonian 4 % Consolidated Preference, No. 1 ..	100	105—107
Do. 4 % do. No. 2 ..	100	103—105
Do. 5 % do. (1878) ..	100	129—131
Do. 4 % Preference, 1884	100	102—104
Do. 4 % do. 1887 (Convertible) ..	100	103—105
Do. 4 % do. 1902	100	102—104
Do. 4 % Convertible Preference, 1904 ..	100	103—105
Do. 4 % do. do. 1906 ..	100	103—105
Cambrian No. 1, 4 % Preference	100	25— 27
Do. No. 2, 4 % do.	100	10— 12
Do. No. 3, 4 % do.	100	5— 7
Do. No. 4, 4 % do.	100	4— 5
City and South London 5 % Preference (1891) ..	100	109—111
Do. 5 % do. (1896) ..	100	105—108
Do. 5 % do. (1901) ..	100	104—107
Do 5 % do. (1903) ..	100	103—106

Here payment at the full rate named is contingent on the profit of each separate year, although the Ordinary stock may not receive a dividend in respect of that year unless the full dividend has been paid on the Preferred. In other words, whilst the guaranteed stock is equivalent to a Cumulative Preference stock, the Preference stock of a British Railway is a Non-cumulative Preference stock.

The next heading of the list deals with

Indian Railways

of which we give only a portion.

Assam Bengal Railway Co., Lim. (Guar. 3 % + share of surplus profits)	100	80 — 81 xd
Bársi Light Railway Co., Lim., Nos. 1-20,000	10	10½— 11
Do. 4 % Debenture Stock, Red.	100	93 — 95
Do. 4 % Latur Ext. Dbs., Red., Nos 1-1250	100	91 — 93
Bengal & North-Western Rlwy. Co., Lim , Ord	100	148½—149½
Do. do. 3½ % Cum. Pref. Stock .	100	87¾— 88¾
Do. do 4 % 2nd Pref. Stock, Cum.	100	96¼— 97¼
Do. do. 3 % Deben. Stock, Red	100	80 — 82
Bengal Dooars Railway Co., Lim., Ordinary	100	94½— 95½
Do. do. 4 % Cum Pref Stk.	100	94 — 96
Bengal-Nagpur Railway Co., Lim. (Guar. 4 % + ¼ the surp. profits)	100	105½—106½ xd
Bombay, Baroda & Central India Railway Co., Capital Stock (Guaranteed 3 % + share of surplus profits) ..	100	91½— 92½ xd
Do 3½ % Debenture Stock, Red. ..	100	95½— 96½
Burma Railways Co., Lim. (Guar. 2½ % + share of surplus profits)	100	111 —112
Do. 3 % Debenture Stock, Red. .	100	81¼ - 82¼

In the case of these Railways the word "guaranteed" has not the artificial meaning given to it in connection with British Railways, but signifies that the Indian Government guarantees the dividend. Where, as in the case of the Assam and Bengal Railway Co., a certain figure is mentioned (in this case 3 per cent) as being guaranteed, plus a share of surplus profits, it means that, should the profits be insufficient to pay the 3 per cent, the Indian Government will make up the deficiency, and that should the profits exceed such sum as is required to pay 3 per cent, the stockholders received a fixed share thereof.

We then come to

Railways—British Possessions

of which section we give merely a portion.

Canadian Northern Quebec Railway Co. 4 % Perp. Gtd. Deb. Stock (Guaranteed by Canadian Northern Railway) ..	100	92 — 94 xd
Do. (Gt. Nth. Ry. Co. of Can.) 1st Mt. Guar. 4 % Gold Bonds (Guaran. by Canadian Northern Rlwy. and endorsed), Red.	—	91 — 93
Canadian Northern Railway Co., 4 % 30-yr. (Ontario Division) 1st Mort. Deb. Bds., 1930, Nos. 1-4584 and 4897-1 ,806 (Guar. by Manitoba Government) ..	100	100 —102
Do. 4 % Perp. Cons. Debenture Stock ..	100	94 — 96 xd
Do. 1st Mortgage 3 % Debenture Stock, 1953 (Guaranteed by Dominion of Canada)	100	85 — 86
Do. 4 % 1st Mort. Consld. Deb. Bds., Nos. 1-24,978 (Guar. by Manit. Govt.), 1930	100	100 —102
Canadian Northern Railway Co., 1st Mt. 4 % Land Grant Bds., Red., wn. Nos. A 1-3274 (£100) & B 3275-4674 (£500) ..	—	101 —103
Do. 1st Mt. 4 % Alberta Gua. Deb. Stk., 1939	100	99 —100
Do. 1st Mortgage 4 % Saskatchewan Guar. Debenture Stock, 1939	100	98 —100
Canadian Pacific Railway Co.	$100	249¼—249¾
Do. 4 % Non-Cum. Preference Stock ..	100	102 —103
Do. Sterl. 5 % 1st Mort. Deb. Bonds, 1915 ..	—	105 —107
Do. 4 % Perpetual Consolidated Deb. Stock	100	103 —104 xd
Do. Algoma Branch 5 % 1st Mort. Bds., 1937	—	113 —115
Central Counties Railway Co 4 % 1st Mort. Bonds, 1949, Nos 1-539 (Class A, Sec. 1) and 1-436 (Class A, Sec. 3)	100	92 — 94
Central Ontario Railway 5 % 1st Mortgage Bonds, 1934, Nos. 1-2000	100	106 —108

It will be noticed that in some cases the column denoting the nominal value of the stock indicates that it is in dollars; consequently the price of 249¼-249¾ against Canadian Pacific Railway Company means that a person ordering ten shares would be purchasing 1000 dollars of such shares, and that the quotations indicate so many dollars per 100 dollars share or per 100 dollars of stock. In the case of this Railway it will be noticed that while the Preference and Debenture stocks are fully described, the first security is merely given as the name of the Company. In all such cases where no specific security is named, the ordinary or common stock is meant.

The next portion of the list is devoted to American Railroads (for some reason or the other one speaks of British *Railways* and American *Railroads*), and here, as in the case of the British Railways, it is found desirable to split up the list into different portions, but before giving sections of these portions it becomes necessary to draw attention to a most important peculiarity in connection with quotations of American securities. As in the case of most stocks, the quotations represent the price to be paid per cent, in dollars, except in a few cases where the column showing the nominal value of the share indicates that value as 50 dollars (in the following list it will be noticed that this is the case with the first security mentioned and one or two others), in which case the quotations are for 50 dollars of the respective stocks. Now, however, comes the complication. The American dollar is worth about 4*s.* 1½*d.*, but as most awkward sums would result from the dollar being calculated at this rate, it is the custom on the London Stock Exchange to reckon the dollar as being five to the £1, i.e. 4*s.*, so that when the British investor purchases American Railroad securities, he simply divides the total number of dollars he has to pay by 5 in order to get at the figures in pounds, and as this holds good both of buying and selling, he suffers no loss by reason of this conventional value being given to the dollar. The market in these American securities is very much more important in New York than in London, and the prices ruling

in New York are cabled over day by day and appear in the morning newspapers. As New York time is about five hours behind°ours, the investor who opens his morning paper sees therein under the heading of "London Prices" the closing quotations in London, but on referring to another column he sees the cabled quotations of the same securities from New York, showing the closing prices in that market five hours after the market closed in London. As the New York prices are naturally in American dollars, which are equivalent to about 4*s.* 1½*d.*, and do not count the dollar as being worth about 4*s.* as we do in London, a comparison between the two prices would be fallacious if no corrective were given. This is done, however, by the newspapers, which place against the New York cabled prices two columns indicating (1) the closing prices in London the night before, and (2) the *equivalent* of the closing New York price expressed in dollars of 4*s.* This will be shown in a column of New York prices which we give further on.

The first section devoted to American Railroad securities is that headed

American Railroad Stocks and Shares

Alabama Great Southern Railroad Company Ordinary Shares .	$50	44 — 45
Do. Great Southern Railroad Company Preferred Shares ..	$50	59 — 61
Do. N. Orl., Tex., and P. J. Rys Co., Lim., 6 % Cm. A Pfd. ..	£10	9½ — 10
Do. N. Orl., Tex., and P. J. Rys. Co., Lim., 6 % Cm. B Defd. ..	£10	[illegible]
Atchison, Topeka, and Santa Fe Railway Company, Com.	$100	117 —117½
Do. 5 % Non-Cumulative Prefd.	$100	108 —109
Atlantic First Leased Lines Rental Trust, Ltd.	Stock	107 —109
Baltimore and Ohio Railroad Co., Common	$100	111¼ —111¾
Do. 4 % Non-Cum. Prefd.	$100	90 — 92
Chesapeake and Ohio Railway Co., Common	$100	86½ — 87 xd
Chicago Gt. Western R. R. Co., Com. Stock Trust Certs. ..	$100	23 — 25
Do. 4 % Preferred Stock Trust Certs.	$100	46 — 48
Do. Milwaukee and St Paul Railway Co., Common ..	$100	131 —132
Do. Milwaukee and St Paul Railway Co., Prefd Non-Cum.	$100	155 —160
Cleveland and Pittsb. R. R. Co. 7 %, gtd by Penn. R•R.	$50	84 — 87
Denver and Rio Grande Railroad Co. (Old Co.), Common	$100	29¾ — 30¼
Do do. (New Co.), Common .	$100	29¾ 30¼
Do. do. (Old Co), 5 % Non-Cum. Prefd.	$100	60½ — 61½
Do. do. (New Co.), 5 % Non-Cum. Prefd. ..	$100	60½ — 61½
Erie Railroad Company, Common .. .	$100	36½ — 37
Do. 4 % Non-Cum 1st Preferred .	$100	57 — 58
Do. 4 % do. 2nd do. ..	$100	47 — 48
Great Northern Railway Co. (U S.A.), Prefd.	$100	141 — 143
Illinois Central Railroad Co, Common .	$100	144½ —145½
Do. do. Leased Line 4 % ..	$100	96 — 99
Kansas City Southern Railway C°., Com. ..	$100	37 — 39
Louisville and Nashville Railroad Company	$100	155½ —156½
Minneapolis, St. Paul and S. Ste. Marie Ry. Co., Com. ..	$100	141 —143
Do. do. Prefd. Stk., Non-Cum	$100	154 —157
Do. do. 4 % Leased Line Stk. Certs.	..	91 — 93
Missouri, Kansas and Texas Rly. Co., Com.	$100	38¼ — 38¾
Do. Prefd. (Non-Cum 4 %) ..	$100	70 — 72
Mobile and Bham. Pfrd. (Non-Cum. 4 %, gtd. by Southern Railway)	$100	69 — 74 xd
National Rlys. of Mexico, Non-Cum. 4 % 1st Preferred ..	$100	68 — 69
Do. Non-Cum. 5 % 2nd Prefd. Nominative ..	$100	32¾ — 33¼
New York Central and Hudson River Railroad Company	$100	114 —115
New York, Ontario and Western Railway Company, Common..	$100	46 — 47
Norfolk and Western Railway Co., Common	$100	110½ —111½
Do. 4 % Non-Cum. Adjust. Preferred	$100	90 — 93
Northern Pacific Railway Co., Capital Stock	$100	138 —140
Pennsylvania Railroad Company	$50	63¾ —64¼
Pittsburg, F. Wayne and Chic., gtd. 7 % by Penn. R.	$100	168 —171 xd
Reading Company, Common	$50	81¾ —82¼
Do. 1st Preferred Non-Cum. 4 %	$50	.. — ..
Do. 2nd do. do. ..	$50	.. — ..
Rock Island Company, Common	$100	34¾ — 35¼
Do. Preferred	$100	68 — 70
St Louis Bridge Company, 1st Prefd. 6 % (gtd. by Ter. R. R. Assn. of St. Louis)	$100	120 —125 xd
Southern Pacific Co., Common Capital Stock	$100	122¼ —122¾
Southern Rly. Co., Common Stock, Voting Trustees' Certificates, Extended	$100	32¼ — 32¾
Do. 5 % Non-Cum. Prefd. Stock Vtg. Trustees' Certificates, Extended	$100	73 — 74
Union Pacific R. R. Co, Common	$100	191½ —192
Do. 4 % Non-Cumulative Preferred	$100	96¾ — 97¼
Wabash R. R. Co., Common	$100	17½ — 18½
Do. Preferred (Non-Cum. 7 % min.)	$100	39½ — 40½

To give a full description of all the various classes of American Railroad securities would require a volume to itself. As regards ingenuity in creating different classes of stock, our own Railway magnates are mere amateurs compared with their American confrères, and it oftentimes requires expert knowledge to determine which security ranks in front of another, and when this has been settled one has to make quite sure that some special stock or bond taking priority over existing issues has not been created within the preceding twenty-four hours.

The next section, portion of which only need be given, is

American Railroad Bonds

Missouri, Kan. and Tex., 100-yr. 1st Mt. 4 % Gld. Bds.	1990	99—101
Do. do. 2nd Mt. 4 % Gld. Bds.	1990	87— 89
Do. Gent. Mort. 4½ % S. F. Gld. Bds., 1-13,170	1936	90— 92 xd
Mobile and Birmingham Mt. 4 % Gld., 1-700 of $1000 and 701-3200 of $200 Int. gtd. by Southern Railway Co.	1945	75— 80 xd
Do. Prior Lien 5 % Gold Bonds of 1945 Int. gtd. by Southern Railway Co.	1945	105—108 xd
Mohawk and Malone Railway Company, 1st Mt 4 % 100-yr. Gtd. Gd. Bds., 1-2500 (Gtd. by New York Cnt.)	1991	102 –104
National Railways of Mexico (Mex. Cent. Rly., Ltd.), Con. Mt. Gold Bds., wn. 1-58,890, 59,051-59,575, 60,216-61,350, 62,101-64,848, and 65,849-67,740	1911	103—105
Do. (Mex. Int. R. R.) 1st Con. M. 4 % Bds. (Stmpd. "Gtd."), wn. 1-7983 ($1000) and 4001-6000 ($500)	1977	82— 85
Do. (Nat. R. R. of Mex.) Prior Lien 4½ % Gld. Bds., M 1-18,000 and M 22,001-25,000 ($1000) and D 18,001-22,000 ($500)	1926	102—104 xd
Do. (Nat. R. R. of Mex.) 1st Con. Mt. 4% Gld. Bds., M 1-20,000 and 24,001-26,749 ($1000) and D 20,001-24,000 ($500)	1951	83— 85
New York & Putnam 4 % 1st Cons. Mt. Gtd. Gld. Bds., Nos. 1-4000 (gtd. by N. York Cnt.)	1993	101—103

New York Central & Hudson River 3½ % Cpn. Gold Bds., Nos. 1–60,000 and 76,933–85,000	1997	90— 92 xd
Do. 3½ % Gold Bds. Mich. Cent. Collat., 1–17,451	1998	82— 84
Do. 3½ % Cpn. Gold Lake Shore Collat., 1–62,273	1998	83— 85
Do. 30-year 4 % Gold Debs., Nos. 1–48,000 ..	1934	97— 99
New York, Ontario and West. Rly. Co. Refunding Mort. 100-yr. 4 % Gold Bonds, Nos. 1–20,000	1992	98—101
Norfolk and Western Gen. Mort. Bonds, Nos 1–7283	1931	127 –129
Do. Improvement and Exten. Bonds, Nos. 1–5000	1934	130 –133
Do. 1st Cons. Mt. 4 % Gld. Bds., 1–34,600 of $1000, D 1–11,001 of $500, and C 1–8000 of $100	1996	101 –103
Do. 4 % Divsl 1st Lien and Gen. Mt. Gld. Bds, 1–23,000	1944	94– 96 xd
Do. Conv. 10–25-yr. 4 % Gold Bds., Nos. 1–14,576	1932	110–112
Northern Pacific-Great Northern 4 % Joint Bds., C. B. & Q. Collat. Coup., Nos 1–177,344	1921	100—102 xd
Northern Pacific Prior Lien Railway and Land Grant Gold Bonds ..	1997	103– 105 xd
Do Gen. Lien Rly. & Ld. Gt. Gold Bds., M 1–50,000 ($1000) & D 1–12,000 ($500)	2047	73— 75
Oregon and Cal. 1st Mt. (Gtd. by S. Pac Co.), wn. 1-20,000	1927	104—106 xd
Pennsylvania Co. Mortgage Bonds, wn. Nos 1-20,000 (Gtd. by Pennsylvania R.R. Company)	1921	105–108 xd
Do. Girard Trust Co Certs. wthn. Nos. 1–20,000 for 3½ % Gold Loan of 1901	1916	97—100
Do. 40-yr. Guar 3½ % Girard Trust Certs. Series C, wn. Nos. 15,001 20,000	1942	89 92
Do. do. Series D, wn. Nos. 1–10,000 .	1944	89— 92
Pennsylvania Railroad 4½ % Bds., wn. Nos. 1–10,000	1913	103—105
Do 4 % Equip. Trust Gld. Bds., Ser. A, wn. 1–3000	1914	100 103
Do Cons. Mt. 4 % Cp. G. Bds., wthn 35,001–38,000	1943	103 106
Do. 3½ % 10-yr. Convertible Bds., wthn Nos. A 1 to A 47,850 of $1000, and B 1 to B 4300 of $500 .	1912	101—103
Do 3½ % 10-yr. Gold Conv. Bonds, wthn Nos. A 1–85,000 of $1000, and B 1–30,000 of $500 .	1915	99—101
Perkiomen Railroad Co. 2nd Series Mort. Bonds	1918	102—105 xd
Philadelphia and Reading, Imp. Mort. Ext. Bonds	1947	102—104
Pittsburg, Cinn., Chic. and St. L. Ry. Cons. Mrt. Bonds, Series A, Nos 1 10,000, and Series B, wn. Nos. 10,001–20,000, Gtd. by Penns. Co .	1940–2	108–110
Do. Series D, within 22,001 27,120, Gtd. by Penns. Co. .	1945	99—101

Here also we refrain from entering into an explanation of the scores of different classes of bonds. A small section, namely, American Railroad Bonds (Sterling), calls for special remark in that, as the heading indicates, these bonds are not in dollars but in British currency, so that the complication referred to arising out of the conventional value given to the dollar by our Exchanges does not here occur. Although, of course, not included in the official list of the London or any other British Stock Exchange, we give one of the cabled lists of New York prices as published in a daily newspaper, and, as this has already been explained, it calls for no special comment.

New York Prices

Eng. Clsg.	Eng. Equiv.	Stocks.	Closing Bid Fri.	Thur.	Wed.	Friday. H.	L.
—	103 1/16	U.S. 2%	100¼	100½	100¼	—	—
116½	116¾	U.S. 4% Gold ..	113¾	113¾	113¾	—	—
—	111¾	N.Y. City 4½ % Bonds	108¾	108⅞	108¾	—	—
116¼	116	Atchison ..	112⅞	112⅞	112⅞	113	112⅝
116	115 5/16	Do. 4 % Cnvrt. Bds.	112¼	112⅜	112½	—	—
104	101¾	Do. New General	99	99	98⅞	—	—
106½	105¾	Do. Preference ..	102½	102¾	102¾	—	—
—	134⅜	Atlantic Castle Line	131	131	131½	—	—
112½	112 11/16	Baltimore and Ohio	109⅝	109¼	108½	109¾	109¼
92½	92¼	Do. do. Pref.	90¼	89¾	89	—	—
249½	248⅝	Canadian Pacific ..	241⅞	241⅝	241½	242⅜	241¾
—	287¼	Central New Jersey	280	280	280	—	—
84	84 5/16	Chesapeake, Ohio ..	82	81⅝	81¾	82	81½
106	103 11/16	Do. 4½ % New	101½	101	101	—	—
23½	22⅜	Chicago Gt Western	22¼	22¼	22⅜	—	—
46	45½	Do. 4 % Prefer...	44¼	44½	44¼	—	—
—	152¼	Chicago No. Western	147⅝	147½	146	—	—
—	204½	Do. Preference	199	199	199	—	—
130	129½	Chicago Milwaukee	126⅝	126¼	126½	126¾	126⅜
157½	157¼	Do. Preference	153	153	153	—	—
	59⅛	C C C. and St Louis	58	58	58	—	—
	174 11/16	Del. and Hudson ..	170	170	170	—	—
29½	29 5/16	Denver . .	28½	28	28	—	—
60½	59	Do. Preference	57⅜	57⅜	57	—	—
37⅞	37½	Erie .	36½	36¾	36⅞	36¾	36⅛
61	59⅞	Do 1st Preference .	58¼	58¾	58¾	—	—
82	81 ⅝	Do. Gen. Lien ..	79¾	79½	79½	—	—
138¼	138½	Great Northern Pref.	134¾	134⅝	134½	134⅝	134⅛
148	147½	Illinois Central ..	143½	143½	143½	—	—
—	179½	Lehigh Valley ..	174⅝	174¼	174	—	—
159	158⅝	Louisville ..	154⅞	154½	154¼	154⅞	154⅝
—	138¾	Manhattan	135	135	135	—	—
145	144 11/16	Minn St Paul and St Marie ..	141	140¾	140¾	—	—
160	159 9/16	Do Preference	155	155	156	—	—
38½	37½	Miss. Kan and T.	36¾	37	37	—	—
87	86¾	Do. 2nd Mort	84⅝	84¼	84⅝	-	—
—	50⅜	Miss Pacific .	49	48¾	48½	—	—
—	90 5/16	Nat. Mex. 4 % .	87⅞	87⅞	87⅞	—	—
68¼	64¼	Do 1st Pref.	63	65	65	—	—
32⅛	31⅝	Do. 2nd Pref.	30¾	31	30¼	—	—
112¼	111¼	N.Y. Central ..	108¾	108¾	108¾	109	109
46¼	46¾	N.Y. Ontario ..	45½	45¼	45½	—	
112	111⅝	Norfolk ..	108⅝	109	108¾	109¼	109
112	111½	Do 4 % Cnvert. B	108¼	108⅞	108¾	—	-
135¼	135⅜	North Pacific .	131¼	131⅝	131¼	132	131⅝
64⅛	64 3/16	Pennsylvania	62 7/16	62 5/16	62¼	62½	62¼
162	162	Reading	157⅝	160⅛	159⅞	158	157⅝
—	93 9/16	Do. 1st Pref. ..	91	91½	91	-	-
101	100¾	Do 4 % Bonds .	98	98¼	98¼	—	-
33	32¾	R Island .	31⅞	31⅞	32⅛	32	31⅞
33¼	33 9/16	Southern Railway ..	32⅝	32¾	32¾	32¾	32¾
75½	74⅝	Do. Pref. ..	72⅝	73	73	-	-
111	111¼	Do. 5 % 1st Mt	108¼	108¾	108	—	
126⅛	125¾	Southern Pacific ..	122	122⅛	121¾		—
—	29 5/16	Texas and Pacific .	28½	28⅝	28⅞	-	-
193½	193 1/16	Union Pacific .	187⅞	187⅞	187⅞	188¼	187⅝
97¼	97	Do Preference	94⅝	93¾	93¾	—	
	104 1/16	Do 4 % Bonds ..	101¼	101⅛	101		—
16¼	16 7/16	Wabash	16	16	16	-	
37	36	Do. Preference	35	35	35	—	—
8 1/16	8	Anaconda . ..	39	39	39⅛	—	—
71	70 11/16	Amal. Copper .	68¾	68⅞	69	69	68⅞
-	51	Utah Copper .. .	49⅝	49⅞	49¼	—	
-	166½	Gen. Electric ..	161¾	161¼	162	—	-
--	62 1/16	G.N. Ore Cert	60¼	61¼	61¼		- -
-	9	Inspiration Cop ($10)	8¾	8¼	8¾	-	--
—	18½	Interbro. M. Co. .	18	18¼	17¾	18¼	18
—	5½	Int. Marine . .	5	5	5		—
—	17½	Do. Preference .	17	17	17½		—
-	56 11/16	National Lead	55⅞	55¼	55¼	-	—
—	150 1/16	N.Y. Cons Gas ..	146	145½	146	—	-
--	--	Philadelphia Co. (Pitts Cm.) ..	—	—	—	—	--
—	82¼	Sm'lng. and Rflng.	80	80	79¾	80½	80
—	109 7/16	Do Pref	106½	107	107		
81¼	81 1/16	U.S. Steel .. .	78⅞	79⅛	78⅞	79¼	79
122	121¼	Do Preference	118¼	118¾	118¼	—	-
—	108 11/16	Do. 2nd 5 % Bonds	105⅞	106	106	-	—
--	82¾	Western Union Te.	80½	80½	80¼	—	-

The next section of the official list is

Foreign Railways

and as the remarks made in connection with other securities already dealt with apply here also, there

is no occasion for any special comment. It is a rather lengthy section, and we give merely an extract.

Aguas Blancas Rly. (Compania Ferro-Carril de Aguas Blancas) 4½ % 1st Mt. Deb. Stk., Red.	100	103 —105 xd
Alcoy & Gandia Rail & Harb., Lim., 4 % Db. Rd.	100	41 — 43
Antofagasta (Chili) and Bolivia Rly. Co., Lim., Prefd. Ord. Stock	100	104 —106 xd
Do. do. Deferred Ordinary Stock ..	100	143 —145
Do. do. 5 % Cum. Preference Stock	100	107 —109 xd
Do. do. 4 % Perp. Debenture Stock	100	101 —103 xd
Do. do. 4½ % Debenture Stock, Red	100	106 —108
Do. do. 5 % Debenture Stock, Red.	100	111 - 113
Do. do 5 % (Bolivia) Deb. Stk., Red.	100	108 —110
Araraquara (San Paulo) Rly. Co. (Cia Estrada de Ferro de Araraquara) (Sterling) 6 % 1st Mort. Debs., A 1-3500 (£100), B 1-1000 (£50), C 1-10,000 (£20)	—	109 —110
Arauco Co., Lim., 1-22,780 and 25,001-50,000 .	10	4⅜— 4⅝
Do. 5 % Irred. 1st Mort. Deb. Stock ..	100	103 —105
Do. 6 % Red. 2nd do. .	100	103 – 105
Do. 5 % Inc. Debs., Reg , Nos. 1-750, Rd.	100	82 — 84
Argentine Gt. Western Rly. Co , Lim., Ord. Stk.	100	104 --106
Do. do. 5 % Cum. Preferred Stock	100	108 —110
Do. do. 1st Deb. Stock, 4 % Perp.	100	100 –102
Do. do. 4 % Irred. 2nd Deb. Stock	100	99 —101
Do. do 5 % Deb. Stock, Red. ..	100	111 113
Argentine N.E. Railway Co., Lim., Stock ..	100	44½ - 45½
Do. do. "A" Deb. Stock, Red. ..	100	105 107 xd
Do. do. "A" Debs., Red. (Bearer)	100	108 110
Do. do. "B" Deb. Stock, Red ..	100	97 99
Do. do. "B" Debs., Red. (Bearer)	100	97 - 99
Argentine Transandine Railway Co., Lim., 7 % Cum. Preferred, Nos. 1-25,000	20	16½ 17½
Do. 4 % "A" Debenture Stock, Red.	100	94 — 96
Do. 4 % "B" do. Red.	100	80 — 82
Arica and Tacna Railway Co., Nos. 1-22,500 ..	20	3½ - - 4
Armavir-Touapsé Railway, Gtd. 4½ % Bonds of 1909 (Gtd. by Russian Government) .. (c)	-	98¼— 98¾

Next come the securities of

Banks and Discount Companies

African Banking Corpor., Lim., Nos. 1-80,000	5	5½— 6
Agricultural Bank of Egypt, Nos. 1-248,000 and 375,001-623,000 (Bearer warrants)	5	6⅞— 7⅛
Do 4 % Cum. Prefd. 250,001-375,000 (Bear. wrns.)	10	9 — 9½
Do. 3½ % Bds., Red., wtn. Nos. 8301-29,300 and 35,551-66,800 of £20, and 1-8300 and 29,301-35,550 of £100	—	88½— 89½
Do. Stg. 3½ % Gtd. Bds., Red., Nos. 1-35,353 (£100) and 100,001-104,235 (£20), Prin. and Int. Guar. by Egyptian Govt.	—	91½— 92½
Agricultural Properties Bank of Norway (Den Norske Arbeiderbrug og-Boligbank) 4 % Bds., Red., Nos. A 1-5160 (£20), B 1-5578 (£100), C 1-278 (£500), Guar. by Norwegian Govt.	—	101 —102
Anglo-Austrian Bank (Paper Currency) ..	Kr. 240	£13 —14
Anglo-Egyptian Bank, Lim., Nos. 1-100,000 ..	5	12½—13
Anglo-Foreign Banking Co , Lim.	7	8¾— 9¼
Anglo-Japanese Bank, Lim., Nos. 1-60,000 .	5	2½— 3
Anglo-Russian Bank, Lim., Nos. 1-240,000 ..	3	2¼— 2¾
Anglo-South American Bank, Limited, Nos. 1-250,000	5	8¼— 8¾

As the shares of several of these banks are in foreign currency, this has to be indicated, but the list shows whether the English quotation is in pounds sterling or in the foreign currency.

The next heading is that of

Breweries and Distilleries

of which we give an extract.

Allsopp (Samuel) & Sons, Lim., Ord. Stock	100	3 — 5
Do. 6 % Cum. Pref. Stock	100	4 — 7
Do. 4 % Non-Cum. Funded Inc. Crts. 1-99,000	1	0 — ⅛
Do. 4½ % Debenture Stock, Red.	100	60 —65
Do. 3½ % do. do.	100	27 —30
Do. 4 % Income Debenture Stock, Red. ..	100	8 —11
Arnold, Perrett & Co., Lim., 6 % Cum. Pref., Nos. 1-20,000	10	1¾— 2¼
Do. do. 4½ % 1st Mort. Deb. Stk., Red.	100	67 —71
Arrol (Archibald) & Sons, Lim., 5 % Cum. Pref., Nos. 1-28,400	10	½— 1
Do. do. 4½ % 1st Mort. Deb. Stk., Red.	100	42 —45
Ashby's Staines Brewery, Lim., Ord., Nos 1-20,000	10	4½— 5½
Do. do. 5 % Cum. Pref., Nos. 1-15,000	10	7 — 8
Do. do. 4 % Perp. 1st Mort. Deb. Stock	100	72 – 76

This used to be a most important market, but of late years has fallen into disfavour, the heavy depreciation in the prices of these securities arising from numerous causes, among which may be included legislation unfavourable to the industry; increasing temperance and, in most cases, overcapitalization.

Another small section deals with

Canals and Docks

Birmingham Canal Navigation (4 % Gtd. by London and North-Westn. Railway Co.)	100	105 —107
Grand Junction Canal, Original Shares .	100	97½— 99½ xd
Do. do. 6 % Pref. (Non-cum.)	10	14¾— 15¼
King's Lynn Docks and Railway Co., 4½ % Debenture Stock (Irredeemable) ..	100	76 — 78
Manchester Ship Canal Co., Perp. 5 % Pref. Nos 1-400,000 ..	10	1⅝— 1¾
Do. 1st 3½ % Perp. Mort. Debs.	—	88 — 90
Milford Docks Co., 6 % Deben. Stock "A"	100	29 — 32
Newhaven Harbour Co., Minimum 4 % Guaranteed L.B.S C.R.	100	104 - 106
Regent's Canal and Dock Co., Capital Stock	100	46 — 48
Do do. 3 % Deb. Stock, Perp.	100	79 - 81
Suez Canal Co., Original Shares ..	f. 500	£218 —223

Not much business is done in these securities, but it will be noticed that it includes so important a stock as the Suez Canal shares, of which the British Government is one of the largest holders.

Then follows the most important section of the list, the heading of which is

Commercial, Industrial, &c.

The following extract will serve to show the sort of security contained in this list, which includes the shares and debentures of Companies trading in every part of the world.

La Guaira Harbour Corp., Lim., 5 % 1st Mt. Irred. Deb. Stock	100	83 —85
Do. 5 % 2nd Mort. Stock (non-cum.), Red.	100	22 —24
La Martona Company (Sociedad Anonyma la Martona) 5 % 1st Mort. Debs., Nos. 1-1300 (Bearer), Red.	100	91 —93
Lady's Pictorial and Sporting and Dramatic Publishing Co., Lim., 5 % Cum. Pref., Nos. 1-35,000	5	2⅜ — 2⅞
Lake Copais Co., Lim., 4 % "A" Debenture Stock, Red.	100	86 —88
Do 6 % "B" Debenture Stock, Red. ..	100	11 —13
Lamson Paragon Supply Co., Lim., Ord., 1-146,459	1	1 1/16— 1 3/16
Do. do. 5½ % Cum. Pref., 1-125,000	1	15/16— 1 1/16

Lanston Monotype Corporation, Lim., Nos. 1-199,121	1	5/16 — 7/16
Lawes' Chemical Manure Company, Lim., Ord., Nos. 1-25,193	9	2 — 3
Do. 7 % Non-Cum. Minimum Pref., Nos. 1-7675	10	8½ — 9½
Lipton, Lim., Ord., Nos. 1,000,001-2,250,000 ..	1	1 — 1 1/16
Do. 5 % Cum. Pref., Nos. 1-1,000,000 ..	1	15/16 — 1 1/16
Do. 4 % Debenture Stock, Red. .. .	100	93 —96
Lister & Co., Lim., Ordinary, Nos. 600,001-1,550,000	1	15/16 — 1 1/16
Do. 5 % Preference (Cum.), Nos. 1-600,000	1	15/16 - 1 1/16
Lockharts, Lim., 5½% Cumulative Preference, Nos. 1-110,000	1	¾ — ⅞
London Central Markets Cold Storage Co., Lim, 1-123,250	1	13/16 15/16 xd
London Commercial Sale Rooms, Lim., Nos. 1-16,247	10	11¾ —12¾
Do. 3 % 1st Mort Deb. Stock, Red. ..	100	65 —75
London, Gloucester and N. Hants Dairy Co., Lim., 1-100,000	17/6	7/16 — 9/16
London Hydraulic Power Co., 3 % Perpetual Deb. Stock	100	66 —69
London Necropolis and Natnl. Mausoleum Co., wn 800-21,705 . . .	10	6¾ — 7¼
London Parcels Delivery Co., Lim., Nos. 1-18,491	3	2 — 2½
London Pavilion, Lim., Ord., Nos 1-26,000 .	5	2¼ — 3¼
London Produce Clearing House, Lim., Nos. 1-50,000 and 50,101-75,100 .	2½	3¼ -- 4¼
London Shoe Co, Lim., 5½ Cum. Pref., Nos. 1-65,000	1	5/16 — 9/16

In some of the newspapers, to facilitate reference, this list is divided into sections, each section being devoted to a certain industry or group of industries, e.g. Breweries, Hotels, and Caterers; Land; Egyptian; Motors and Cycles; Iron, Steel, Coal, and Engineering; Newspapers and Printing; Nitrates; Shipping; Telegraphs and Telephones; &c. In the case of industrials, while debentures are always quoted per cent, that is to say, the quotation indicates the price for £100 of debentures, the shares are quoted at so much each, and, in the absence of any indication to the contrary, it may always be taken that the shares are of the nominal value of £1 each.

The next section of the list is devoted to

Electric Lighting and Power Companies

and calls for no special comment.

Midland Electric Corp., for Power Distribution, Lim., 4½ % 1st Mt. Debs., Red., 1-1750 (£100), and 1751-1900 (£500)	.	98 —100
Monterey Railway, Light and Power Co., 5 % 1st Mort. Deb. Stock, Red.	100	89½ — 91½
Montreal Light, Heat and Power Co., Cap. Stock (Montreal Certs.)	$100	174 --179
Newcastle-upon-Tyne Electric Supply Co, Lim., Ord, Nos. 1-50,000 and 57,010-137,500	5	3½ — 4
Do. do. Nos. 50,001-57,009 .. .	5	3½ - 4
Do. 5 % Pref, Nos. 1-137,500, Non-Cum. ..	5	4 — 4½
Do. 4½ % Cons. 1st Mort. Deben Stk., Red.	100	99 - 101
North Metropolitan Electric Power Supply Co., 5 % Mort. (Red), Nos. 1-1500, Regd.	100	99 —102
Northern Light Power and Coal Co., Lim., 5 % 1st Mortgages 20-year Gd. Bds., Red. ($500 = £102, 15s. 6*d*.)		54 — 56%

Then come

Financial, Land, and Investment Companies

of which we give an extract only.

British North Borneo Co., Nos. 1-1,839,721 ..	1	1⅛ — 1 3/16
British South Africa Co., Reg., Nos 1-8,055,622	1	1 3/16 — 1¼
Do. Warrants to Bearer, do. do.	1	1 1/16 — 1⅛
Do. 5 % Mort. Debs., Red..	—	107 —109
Do. 5½ % 2nd Deb. Stock, 1913-28 ..	100	—
Bromboro Port Estate, Lim., 4½% Deb. Stk., Rd.	100	101¾ —102¼
Caja de Prestamos Para Obras de Irrigacion y Fomento de la Agricultura 35-yr. 4½ % Sg. Fd. Gd. Bonds (Guar by U S of Mexico), (1000 pesos (or $500) = £102, 17*s*. 7*d*.)		£94½ -- 95½%,
Calgary and Edmonton Land Co., Lim., Nos 1-241,510	1/	1 — 1⅛
Canada Company	1	26 — 28
Canada North-west Land Co., Lim., Com. Shar	$1	$100 —110
Canadian Northn. Prairie Lands Co., Lim, Sh	$5	2 13/32 — 2 15/32
Canadian Wheat Lands, Lim, Nos. 1-350,000	1	1 — 1⅛
Car Trust Realization Co., Lim., 5 % Income Bds. (Reg), 1-350 (£1000), 351 3750 (£100), 3751-7624 (£10), Red	-	24 — 26
Do. 4 % Debenture Stock, Red .	100	91 — 93

Next we have

Financial Trusts

of which we give a few examples.

African City Properties Trust, Lim., Ord, Nos. 1-125,000 and 250,001-345,334	1	13/16 — 15/16
Do 6 % Cum. Pref, Nos. 125,001-250,000	1	1 — 1⅛
Do 5 % 1st Mort. Deb. 1-1926 of £100, and 1927-2666 of £10, Red. ..	—	100 —102
Alliance Invest. Co., Lim., Cum. 4½ % Pref Stk	100	90 — 92
Do. do. Deferred Stock	100	92 — 94
Do do. 4 % Deb. Stock, Red.	100	96 — 98
American Investment Trust Co., Lim., 5 % Non-Cum. Pref	100	108 —110
Do. do. Deferred Stock	100	129 —131
Do do 4 % Deb Stock, 1987	100	100 —102
Anglo-American Deb. Corp, Lim, Ord. Stk.	100	118 —120 xd
Do do. Cum 4½ % Pref. Stk.	100	87 — 89
Do. do. 4 % Deb. Stock, Red.	100	96 — 98
Anglo-French Mercantile and Finance Corporation, Lim., Ord, 1 500,000 ..	1	⅝ — ¾
Army and Navy Investment Trust Co, Lim, 5 % Cum. Pref Stock	100	104 —106 xd
Do do Deferred Stock ..	100	149 —151 xd
Do do. 4 % Perp. Reg. Deb. Stk	100	99 —101
Atlas Trust, Lim., 4 Cum. Pref Stock .	100	.. —
Do 4 Perp. Deb. Stock .	100	.. — ..

In the United Kingdom one understands by a Trust Company a Company which invests its capital in Stock Exchange securities, paying dividends to its shareholders out of interest and dividends received by it on its investments and on the profits it makes by the sale and purchase of such investments. Trust Companies go in largely for underwriting.

The next section of the official list deals with

Gas Companies

Aldershot Gas, Water, and District Lighting Co., 4 % Cons Pref. Stock	100	96 — 98
Alliance & Dublin Consumers' Gas Co., Alliance & Dublin Gas Cons. Ord Stk.	100	83 — 86
Do 4 % Debenture Stock (Perpetual)	100	95 — 97
Bahia-Blanca Gas Co., Lim., Ordinary "A", Nos. 1-30,000	5	4 — 4¼ xd

Bombay Gas Co., Lim., Nos. 1-40,000	5	6¼ — [illegible]
Do. do. Nos. 40,001-50,000 ..	4	5¼ — 5¾
Bournemouth Gas and Water Co., Orig. 10 % Standard Shares, 1-4000	10	28½ — 29½
Do. "B" 7 % Max. Shares, Nos. 6001-25,000, 29,001-34,181, 34,502-41,501, and 43,682-45,700	10	16⅝ — 16⅞
Do. 6 % Prefer. Shares, Nos 5001-6000, 25,001-29,000, 34,182-34,501, and 41,502-43,681	10	14½ — 15
Brentford Gas Co., Consol. Stk (10 % Stand.)	100	257 —262
Do. do. New Stock (7 % Standard)	100	203 —208
Do. do. 5 % Preference Stock ..	100	122 —124
Do. do. 4 % Perpetual Deb. Stock	100	97 — 99 xd
Brighton and Hove General Gas Co., Original Ordinary Consolidated Stock	100	217 —220
Do. "A" Ordinary Consolidated Stock	100	157 — 160
British Gas Light Co., Lim., Nos. 1-24,500 ..	20	43½ — 44½
Do. do. 4 % Deb Stock, Red.	100	96 — 98
Bromley and Crays Gas Co., "A" Ord. Stock (5 % Stand.)	100	116 —118
Do. do. "B" Ord. Stk. (3½ % Stand.)	100	87 — 89
Do. do "C" Ord. Stk. (5 % Stand.)	100	106 —108
Do. do. 3½ % Deb. Stock, Perp. ..	100	84 — 86

It will be noticed that it includes a sprinkling of Companies supplying gas to foreign and colonial cities. The Imperial Continental Gas Association, with a capital of nearly £5,000,000 and a debenture issue of well over £1,000,000, has gasworks in numerous foreign cities.

The next section of the list deals with

Insurance Company Shares

Alliance Assurance Co., Lim .. .	2.4.0	12 — 12½
Do. do. New Shares, Nos. 1-450,000	1	13¼ — 13¾
Atlas Assurance Co., Lim., Nos. 1-220,000 .	1.4.0	6¼ — 6¾
British Law Fire Ins. Co., Lim., Nos. 1-100,000	1	3¾ — 4¼
Do. do. Nos. 100,001-150,000	1	4½ — 5
Clerical, Medical, and General Life Assurance Society, 1-20,000	2½	17¾ — 18¼
Commercial Union Assur. Co., Lim., 1-295,000..	1	19¾ — 20¼
Do. 4 % "West of England" Term. Deb. Stk.	100	101 —103
Do. Com. Union Palatine 4 % Deb. Stk., Rd.	100	101 —103
Do. 4 % Union Debenture Stock, Red. ..	100	101 — 103
Do. "Ocean" 4 % Debenture Stock, Red...	100	101 —103

Debenture and Preference shares are more the exception than the rule in the case of Insurance Companies.

Next come

Iron, Coal, and Steel Securities

a few of which we give.

Thames Iron Works, Shipbuilding and Engineering Co., Lim., 5 % Cum. Pref., Nos. 1-300,000	1	3/16 — 5/16
Do. 4 % Irredeem. 1st Mort. Debs, Nos 1-2000	100	70 —73
Thornycroft (John I. & Co.), Lim., Ord., 160,001-308,500	1	7/16 — 9/16
Do. 6 % Cum. Pref., 1-160,000 and 400,001-488,000	1	⅝ — ⅞
Do. 5 % 1st Mort. Debs, 1-1600 (Reg.), Red.	100	93 — 97
Do. 5½ % 2nd Mort. Debs., Nos. 1601-2600, Red.	100	89 - 92
Tylor (J.) & Sons, Lim., 5 % Cum. Pref., Nos. 1-10,000	10	5 — 6
United Collieries, Lim., 5 % Debs., wthn. 1-10,000, Red.	100	44 — 46
United States Steel Corporation, Com. Stock	$100	80¾ — 81¼
Do. do. 7 % Cum. Preferred Stock ..	$100	121½ —122½
Do. 10-60-yr. 5 % Skg. Fd. Gld. Bds., wn. 1-200,000, Red.	$1000	108 —110

Vickers, Lim., Ord., Nos. 1-3,700,000	1	2⅛ — 2 3/16
Do. do. 5 % Non-Cum. Preferred Stock	100	108 —112
Do. do. 5 % Non-Cum. Prfce., 1-750,000	1	1 1/16 — 1 3/16
Do. do. 4 % 1st Mort. Deb. Stock, Red.	100	100 —102
Do. do. 4½ % 2nd Mort. Debs., wn. 1-10,000, Red. ..	100	102 —104
Do. do. 5 % 3rd Mort. Debs., wn. 1-10,000, Red. ..	100	103 —105

In this section are included the stocks and bonds of the United States Steel Corporation, one of the biggest concerns in the world, in which dealings are very frequent.

Next comes a small section dealing with mines, but as only very few of the mining shares dealt with are included in the official list, these are referred to further on.

A special section is given to

Nitrate Companies

Aguas Blancas Nitrate Co., Lim., 6 % Debs, Red., 1-1500 Reg	100	105 —107
Alianza Co., Lim, Nos 1-100,000	5	12½ — 18 xd
Anglo-Chilian Nitrate and Rly. Co., Lim., Ord., Nos. 1-30,000	5	13¾ — 14¼
Do. Nos. 30,001-110,000 (issued at £3 pm. all paid)	2	10¾ — 11¼
Do 7 % Cum. Pref., Nos. 1-70,000 . ..	5	13¾ — 14¼
Do. 4½ % Cons. Mort. Bonds, within Nos. 1-5718, Red.	100	99 —101
Colorado Nitrate Co, Lim., Nos. 1-32,000 .	5	6¼ — 6¾

Next come shares in

Oil Companies

Anglo-Persian Oil Co., Lim., Cum. 6 % Participg. Pref., Nos. 1-600,000	1	1 1/16 — 1 3/16
Do. do. 5 % Debenture Stock, Red. ..	100	93 — 96
Assam Oil Co., Lim., Nos. 1-310,000	1	9/16 — ⅝ xd
Bibi-Eybat Petroleum Co., Lim., Nos. 1-380,000	1	1/16 — ⅛
Do. do. 5½ % Debs, Red., Nos. 1-1250	100	40 — 50
British Australian Oil Co., Lim., Nos. 1-7 and 96,008-300,000	1	15/16 — 1 1/16
British Burmah Petroleum Co., Lim., 6 % 1st Mort. Debenture Stock, Red. ..	100	86 — 89 xd
Burmah Oil Co., Lim., Ord., 1-1,156,667 and 1,270,001-1,905,000 . ..	1	3⅝ — 3¾
Do. 6 % Cum Pref, Nos 1-250,000 ..	1	1 3/16 — 1 5/16
Do. 6 % Cum. 2nd Pref., Nos. 1-75,000 ..	10	11½ — 12
California Oilfields, Lim., Nos. 1-400,000 ..	1	4½ — 4¾
Do. 5 % 1st Mort. Debs. (Reg.), Rd., wtn. Nos. 1-3000	100	101 —103
Coalinga British Oil Co., Lim., 8 % Partpg. Prefd. Ord., 1-125,000	1	13/16 — 15/16
Commonwealth Oil Corp., Lim., Prefd. Ord., 1-500,000 (Non-Cum.) ..	1	⅜ — ½
Do. 5½ % Debs., Rd., 1-1000 (£50), 1001-2000 (£100), Reg	—	85 — 90
Do. 6 % Debenture Stock, 1909, Red. ..	100	72 — 76

The shares of a large number of Oil Companies, however, are not included in the official list, but are dealt in freely on the Stock Exchange, and are quoted under a special heading in the daily press.

The next section of the list—much smaller than might be thought—is devoted to

Shipping Companies

African Steam Ship Co., Nos. 1-33,750	20	16⅜ — 17½
Anchor Line (Henderson Bros.), Lim., 5½ % Cum. Pref., 1-32,500	10	9 — 9½
Do. 4½ % Red. 1st Mort. Deb. Stock	100	96 — 99
Argentine Navig. Co. (Nicolas Mihanovich), Lim., Pref., 1-400,000	1	1 7/16 — 1½
Do. 6 % 1 Mort. Debs., Red., wn. 1-7600 (£100), and 7601-9600 (£20)	—	104 —106
Australasian United Steam Navigation Co., Lim., 4 % Debenture Stock, Red. ..	100	83 — 86
British and African Steam Navigation Co., Lim., 4½ % 1st Mort. Debenture Stock, Red	100	101 —103
Bucknall Steamship Lines, Lim., 5½ % 1st Pref., Nos. 1-40,000 (Cum. aft. 1st Jan., 1912)	2	1 — 1¼
Do. 4½ % 1st Mt. Debs., wn. Nos 1-6000 Rd.	100	95 — 98
Clan Line Steamers, Lim., 4½ % Deb. Stk., Red.	100	92 — 95
Colombia Navigation Co., Lim, 1st Mort 6 % Guar. Debs., wn. Nos. 1-2250 (£100), and 2251-13,500 (£20)	—	84½ — 85½
Commercial Steamship Co., Lim., Nos. 1-10,642	6	. .. .
Cunard Steamship Co., Lim., Nos. 1-60,000 ..	20	15½ — 16
Do. do. Nos. 60,001-100,000 ..	10	7 — 7½
Do. do. 4½ % Mort. Deb. Stk., Red.	100	102½ —104½
Elder, Dempster & Co., Lim, 5½ % Cumulative Preference, 1-400,000	1	1⅛ — 1 1/16
Do. do. 5 % Debenture Stock, Red.	100	101 —103
Elder Line, Lim., 4½ % 1st Mort. Deb. Stk., Rd.	100	100 —102
Ellerman Lines, Lim., Ordinary, Nos. 1-69,990	10	9 — 9½
Do. 4½ % Cum. Pref., Nos. 1-70,000	10	8½ — 9

Another section deals with the securities of

Tea, Coffee, and Rubber Companies

We give only a portion, and only a small number of rubber shares are included in the official list.

Amalgamated Tea Estates Co., Lim., Ord., 50,001-97,835	10	6¾ — 7¼
Do do. 5 % Cum. Pref. 1 42,000	10	9 — 9½
Anglo-Ceylon and General Estates Co., Lim, Nos 1-250,000	1	3⅛ [illegible]
Do. 5 Mort Debs., Reg., Nos. 1-1100, Red. 1925 . ..	100	100 —102
Anglo-Dutch Plantations of Java, Lim., Nos. 1-1,100,000	1	[illegible] — [illegible]
Anglo-Java Rubber and Produce Co., Lim, Nos. 1-400,000	1	¼ — [illegible]
Anglo-Malay Rubber Co, Lim, Nos 1-1,500,000	2/	[illegible] [illegible]
Assam Company, Nos. 1-10,000 .. .	20	48 50
Associated Tea Estate of Ceylon, Lim., Ord, 8001 13,000	10	4 — 5
Do. do. 6 % Cum. Pref., 1-6000	10	11 — 12

Under the heading of

Telegraphs and Telephones

come a score or two of Companies, some of them, e.g. the Western Union Telegraph Company, an American concern, very large indeed.

United River Plate Telephone Co., Lim., Ord., 1-150,000	5	7 9/16 — 7 13/16
Do. Nos. 150,001-190,000	5	7 7/16 — 7 11/16
Do. 5 % Cum. Pref., Nos. 1-40,000	5	5⅜ — 5⅝
Do. 4½ % Debenture Stock, Red.	100	103 —105
West Coast of Amal. Telegraph Co., Lim., 1-30,000 and 53,001-53,008	2½	1⅛ — 1⅜
Do. 4 % Debs, Nos. 1-1500, Gua. by Western Telegraph Co., Red. ..	100	99½ —101½
West India and Panama Tele. Co., Lim., Ord.	10	2⅜ — 2⅝
Do. do. 6 % Cum. 1st Preference..	10	10¼ — 10¾
Do. do. 6 % Cum. 2nd Preference.	10	9½ — 10
Do. do. 5 % Debs., Nos. 1-800, Red.	100	102 —104
Western Telegraph Co, Lim., No. 1-207,930	10	13½ — 14 xd
Do do. 4 % Debenture Stock, Red.	100	101 - 103
Western Union Tele. Co., Conv. 4 % Red. Bds., Ser. "A", Nos. 1-10,000	$1000	105 —108
Do. 4½ % Fdg. and Real Estate Mort. 50-yr. Gold Bonds., 1950, 1-20,000 ..	$1000	99½ —102½

Under the heading of

Tramways and Omnibus

we have a number of Companies, the majority of which undertakings are in foreign and colonial cities.

Anglo-Argentine Trms. Co., Lim., 5½ % Cum. 1st Pref. 1-640,000	5	5⅛ — 5⅜ xd
Do. 5½ % Cum 2nd Pref., 800,001-1,300,000	5	4⅞ — 5⅛ xd
Do. 4 % Debenture Stock, Red.	100	94 — 96 xd
Do. 4½ % Debenture Stock, Red	100	99½—101½ xd
Do 5 Debenture Stock, Red. .. .	100	100½—102½
Auckland Elec. Trams. Co., Lim., 5 % 1st Mort. Deb. Stock, Red .. .	100	104½—106½
Bath Electric Tramways, Lim., Preferred Ord., Nos. 75,001-150,606 ..	1	⅛ — 3/16
Do. 5 Cum. Preference, Nos. 1-75,000 ..	1	⅝ — ¾
Do. 4½ 1st Mort Deb Stock, Red. ..	100	79 — 83
Birmingham and Midland Trams., Lim., 4½ % 1st Deb Stock, Red.	100	90½ — 92½
Bombay Elec. Supply and Trams Co., Lim., 6 % Cum. Pref. .. (b)	10	10⅞ — 11⅜
Do. 4½ % Deb. Stock, Red.	100	98 —100
Do. 5 % 2nd Mt Dbs, Rd, Nos. 1-1700	100	98½ - 100½
Brisbane Elec. Tramways Invest Co., Lim., Ord, 1 75,000 ..	5	6¼ — 6¾
Do. do. 5 % Cum. Pref, Nos. 1-75,000	5	5 — 5⅜
Do do 4½ , 1st Deb. Stock, Red. ..	100	101 —104
British Columbia Elec. Rly. Co., Lim., Defd. Ord Stock	100	145 —149
Do. Preferred Ordinary Stock .. .	100	128½—132½
Do. 5 % Cum. Perpetual Pref Stock .	100	110 —112
Do. 4½ % 1st Mt. Dbs., wn. Nos 1-6250, Red	40	100 — 103
Do. 4½ % Vancouver Power Dbs, wn. 1-2200 (1953)	100	102 —105
Do. 4¼ % Perpetual Consolidated Deb. Stock	100	101½—103½

And the final section of the official list deals with

Waterworks

in which, however, business is not very active.

Kimberley Waterworks Co., Lim .	7	5 — 5½
Monte Video Waterworks Co., Lim, Nos. 1-37,500	20	32 — 33
Do 5 , 1st Debenture Stock (Irred) .	100	106 —108 xd
Do 5 , 2nd do. do. .	100	103 —105 xd
Montreal Water and Power Co., 4½ % 1st Mt. Pr Ln. Gold Bds, Reg., wtn. 1-3017, 3058-3061, 3088-3157, 3183-3942, 4418-4817, and 4906 6793 and 7062 7495. Red .	100	94 — 96
Pernambuco Water Co. (Companhia do Beberibe), London Bondholders' Committee's Certs of Dep, wn. Nos. 1-482 & 485 854 for 6 % 1st Deb. Sterlg Bonds	100	99 —101
Do. Lon. Bondholders' Committee's Certs. of Dep., Nos. 1-498, for 6 % 2nd Debs. Sterling Bonds	100	98 —100
Province of Buenos Ayres Waterworks Co, Lim., Ord, "A" Nos. 1-44,000	5	6¼ — 6¾
Do. 5 % Cum. Prefce., Nos. 1-26,000 .	2½	2¼ — 2¾

Mining Shares

Only a very small number of mining shares are quoted in the official list, but this market has assumed such importance that most newspapers devote a special section to it. It is split up into three or more divisions, usually South African Mines, Australian Mines, and Miscellaneous. We give extracts from typical lists of prices of these shares.

South African

Government Areas (Modderfontein)	$1\frac{1}{8}$	[illegible]
Harmony Development and Finance, 2/ shares	1/	1/6
Harmony Proprietary	4/3	4/9
H. E. Proprietary	$\frac{13}{16}$	$\frac{7}{8}$
Henderson's Trans. New	5/3	5/9
Do. 6 % Debentures	104	108
Heriot	$4\frac{1}{2}$	$4\frac{5}{8}$
Johannesburg Consolidated Investment	$1\frac{3}{16}$	$1\frac{1}{4}$
Do. Estates	$\frac{3}{8}$	$\frac{1}{2}$
Do. Goldfields, 10/ shares	4/	4/6
Jubilee	$\frac{3}{8}$	$\frac{1}{2}$
Jumpers	$1\frac{3}{8}$	$1\frac{1}{2}$
Kleinfontein, New	2	$2\frac{1}{16}$
Klerksdorp Proprietary, 5/ shares	3/6	4/
Knights	$2\frac{11}{16}$	$2\frac{13}{16}$
Lancaster West	$\frac{11}{16}$	$\frac{13}{16}$
Langlaagte Estates	$2\frac{3}{16}$	$2\frac{5}{16}$
Luipaard's Vlei New	$\frac{7}{16}$	$\frac{9}{16}$
May Consolidated	1	$1\frac{1}{8}$
Meyer and Charlton	$4\frac{3}{16}$	$4\frac{5}{16}$
Modderfontein, £4 shares	$12\frac{1}{4}$	$12\frac{5}{8}$
Modderfontein B.	$2\frac{3}{8}$	$2\frac{1}{2}$
Mount Yagahong, 2/ shares	2/6	3/
Mozambique	21/9	22/3
New African	$\frac{1}{2}$	$\frac{9}{16}$
New District Development	$1\frac{1}{4}$	$1\frac{3}{8}$
New Eastern Investment, 5/ shares	2/6	3/6
New Goch	$1\frac{1}{2}$	$1\frac{9}{16}$
New Primrose	$2\frac{5}{16}$	$2\frac{7}{16}$
New Unified Main Reef	$\frac{13}{16}$	$\frac{15}{16}$
Nigel	$1\frac{1}{4}$	$1\frac{3}{8}$
Nourse Mines	$2\frac{3}{8}$	$2\frac{1}{2}$
Nyassa	3/3	4/3
Oceana Consolidated, 10/ shares	10/9	11/3
Pigg's Peak Development	$\frac{11}{16}$	$\frac{13}{16}$
Princess	$\frac{7}{8}$	1
Randfontein Estates	$2\frac{3}{16}$	$2\frac{1}{4}$
Do. 6 % Debentures	106	108
Do. Central	$1\frac{13}{16}$	$1\frac{15}{16}$
Do. Extension	$\frac{3}{8}$	$\frac{5}{8}$
Rand Mines, 5/ shares	$7\frac{5}{8}$	$7\frac{11}{16}$

West Africans

Abbontiakoon, 10/ shares	7/9	8/3		
Abosso Gold Mining	$1\frac{5}{32}$	$1\frac{9}{32}$		
Ancobra Explor. and Dredg., 2/ shares	1/	1/6	+	/3
Aufargah, 10/ shares	4/6	5/6		
Ashanti Goldfields, 4/ shares	$1\frac{7}{32}$	$1\frac{9}{32}$	+	$\frac{3}{32}$
Do. Territories, 5/ shares	3/	3/6	+	/3
Ashanti Rivers, 4/ shares	1/6	2/		
Do. Options	$/1\frac{1}{2}$	$/4\frac{1}{2}$		
Bibiani, 18/ paid	7/6	8/6	+	/6
Broomassie, 10/ shares	5/9	6/3		
Cinnamon Bippo	$\frac{3}{4}$	1		
Darymusu Development	1	$1\frac{1}{4}$		
Dunkwa Mining Syndicate, 10/ shares	15/	15/6		
Effuenta, 5/ shares	1/3	1/9	+	/3
Fanti Consolidated, New 10/ shares	14/9	15/3	+	/3
Do. Options, New	/6	1/		
Fanti Mines, 5/ shares	3/9	4/3	+	/3
Gold Coast Amalgamated	$1\frac{15}{16}$	2	+	$\frac{11}{32}$
Himan Concessions	$1\frac{1}{16}$	$1\frac{1}{8}$		

Nigerian Tin

Anglo-Continental, 10/ shares	10/	11/	+	/6
Bisichi Tin (Nigeria)	$\frac{11}{16}$	$\frac{3}{4}$	+	$\frac{3}{32}$
Champion (Nigeria) Tin, 5/ shares	$\frac{5}{8}$	$\frac{3}{4}$ xd	+	1/
Gel. Lode and Alluvial, 5/ shares	1/6	2/6		
Gurum River, 10/ shares	10/	11/		
Jos Tin Area (Nigeria), 5/ shares	2/6	3/6	+	/6
Juga (Nigeria) Tin and Powr	$\frac{5}{8}$	$\frac{11}{16}$	+	$\frac{1}{32}$
Lucky Chance, 5/ shares	$\frac{3}{8}$	$\frac{1}{2}$	+	$\frac{1}{16}$

Tin

Briseis	5/6	6/6 xd	—	/3
Cornwall Tailings	$2\frac{5}{8}$	$2\frac{7}{8}$		
Dolcoath	21/6	22/6		
Geevor, 10/ shares, 2/ paid	/3	/9pm		
Gopeng	$3\frac{5}{8}$	$3\frac{7}{8}$ xd		
Goss Moor Tin Alluvials, 5/ sh., 4/6 pd.	$\frac{1}{32}$dis	$\frac{1}{32}$pm		
New Gopeng	3	$3\frac{1}{4}$ xd		
Pahang Con., 5/ shares	4/6	5/6		
Pengkalen	$\frac{5}{16}$	$\frac{7}{16}$		
Pusing Bharu	13/6	14/6	—	/6
Pusing Lama	3/	4/	—	/9
Tekka	$2\frac{11}{16}$	$2\frac{13}{16}$		
Tronoh	$4\frac{7}{16}$	$4\frac{9}{16}$	—	$\frac{1}{16}$
Zaaiplaats Tin, 5/ shares	$4\frac{3}{4}$	$4\frac{7}{8}$ xd	+	$\frac{1}{16}$

West Australian

Anglo-Australian Exploration	$\frac{1}{2}$	$\frac{5}{8}$
Associated Gold Mines	9/3	9/9
Do Northern Blocks	4/9	5/3
Australian Midas (Victoria), 5/ shares	5/9	6/9
Bull Ant Proprietary	$\frac{1}{4}$	$\frac{5}{16}$
Bullfinch Proprietary (W.A.)	$\frac{13}{16}$	$\frac{15}{16}$
C. & W. Boulder, fully paid	/0	/3
Chal ers, 4/ shares	1/3	1/9
Cosmopolitan	1/	1/6
East Bullfinch Proprietary	$\frac{3}{16}$	$\frac{1}{4}$
Golden Bullfinch, 5/ shares, 4/ paid	2/	3/
Golden Horseshoe, £5 shares	3	$3\frac{1}{8}$
Great Boulder, 2/ shares	16/9	17/3
Do. Perseverance	3/9	4/3
Great Chaffinch, 10/ shares, 5/ paid	/6	1/6
Great Fingall, 10/ shares	17/	18/
Hainault	$\frac{7}{16}$	$\frac{1}{2}$
Ida H., 5/ shares	6/9	7/3
Ivan. oe, £5 shares	$6\frac{1}{4}$	$6\frac{3}{8}$

Russian

Anglo-Siberian	$1\frac{9}{16}$	$1\frac{11}{16}$
Atbasar Copper	$1\frac{9}{16}$	$1\frac{11}{16}$
Kyshtim Corporation	$1\frac{13}{16}$	$1\frac{15}{16}$
Lena Goldfields	$5\frac{1}{4}$	$5\frac{1}{2}$
Orsk Priority, 16/ paid	$\frac{1}{16}$dis	$\frac{1}{16}$pm
Russian Mining Corporation	$1\frac{3}{16}$	$1\frac{5}{16}$
Russian Ventures	$\frac{1}{8}$	$\frac{1}{4}$
Siberian Proprietary	$\frac{3}{4}$	1
Siberian Syndicate	3	$3\frac{1}{4}$
Spassky Copper	$3\frac{5}{8}$	$3\frac{3}{4}$
Troitzk Goldfields	1/3	1/9
Vagransky	1	$1\frac{1}{8}$

Miscellaneous

Balaghat	2/6	3/6
Blackwater	$1\frac{1}{8}$	$1\frac{3}{8}$
Brilliant, £2 shares	5/	6/
Do. St. George, 10/ shares	/3	/9
Champion Reef, 2/6 shares	8/	8/6
Colombia Mining and Exploration	$\frac{3}{8}$	$\frac{5}{8}$
Con G F. New Zealand	$\frac{7}{8}$	1
Gen. Mines Investment	1	$1\frac{1}{4}$
Hudsons' Cons. new shares	$\frac{11}{16}$	$\frac{13}{16}$
Komata Reefs, 5/ shares	/3	/6
Lon. Venture, 4/ shares, fully paid	2/	2/6

Rubber Shares

During the year 1910 a remarkable boom took place in the shares of companies formed to engage in the cultivation of rubber, and, as had been the case with Mining Company shares and Oil Company shares, the newspapers found it necessary to print a special list of prices for this class of share. We would merely draw attention to the large number of shares the nominal value of which is 2s., this denomination being more or less peculiar to

Rubber Company shares, although it will in all probability extend to other branches. Shares of the nominal value of 10*s.*, 5*s.*, and 2*s.* 6*d.* were not unknown, and existed in the case of a few Mining Companies, but not until the advent of the rubber boom did low denominations become widespread.

EASTERN PLANTATION AND OTHER COMPANIES

MALAY AND SUMATRA COMPANIES

Rubber Acreage Planted	Share Capital Issued.	Make up 12th July.	Share.	Stock Exchange. Closing	Stock Exchange. Rise or Fall.	Mincing Lane. Closing.	Mincing Lane. Rise or Fall.
	£						
4,570	265,217	$3\frac{7}{8}$	*Lanadron (£1)	$3\frac{5}{8}$ $\frac{7}{8}$		$3\frac{5}{8}$ $\frac{3}{4}$	
1,696	65,000	$2\frac{3}{4}$	*Langkat Sumatra	$2\frac{5}{8}$ $\frac{7}{8}$		—	
1,421	40,000	$1\frac{3}{8}$ pm	*Ledbury (12/6 paid)	$\frac{3}{8}$ $\frac{7}{8}$ pm		$1\frac{1}{4}$ $\frac{1}{2}$ pm	− $\frac{1}{8}$
	66,000	3	* „ (£1 paid)	$2\frac{7}{8}$ $3\frac{1}{8}$		$2\frac{7}{8}$ $3\frac{1}{8}$	
4,192	90,000	43/3	*Linggi Plantations (2/)	40/9 41/3x	+ /$1\frac{1}{2}$	40/9 41/3x	
4,282	149,350	11/3	*London Asiatic (2/)	10/3 10/9		10/6 11/	
3,383	147,500	$\frac{5}{8}$ pm	Lumut (£1) 13/ paid	$\frac{1}{2}$ $\frac{3}{4}$ pm		$\frac{1}{2}$ $\frac{5}{8}$ pm	
15,000	185,000	10	*Malacca (£1)	$9\frac{1}{2}$ 10		$9\frac{1}{2}$ $\frac{3}{4}$	− $\frac{1}{8}$
—	115,000	$9\frac{3}{4}$	* „ Pref. (£1)	$9\frac{1}{4}$ $\frac{3}{4}$		$9\frac{1}{2}$ $\frac{3}{4}$	
5,600	183,285	4/3	Merlimau (2/)	4/ 4/6		4/ 4/6	
2,459	250,000	$1\frac{1}{16}$	Mount Austin (£1)	$1\frac{1}{2}$ $\frac{5}{8}$		—	
1,891	70,700	$2\frac{7}{8}$ pm	*North Hummock (16/6 paid) .	$2\frac{7}{8}$ $3\frac{1}{8}$ pm		$2\frac{7}{8}$ $3\frac{1}{8}$ pm	
681	51,500	3/	Padang Jawa (2/)	2/9 3/3		2/9 3/3	
1,454	22,500	$2\frac{1}{4}$	*Pataling (2/)	$2\frac{3}{16}$ $\frac{5}{16}$		$2\frac{1}{8}$ $\frac{1}{4}$	
959	85,000	7/6	*Perak (2/)	6/6 7/x		6/6 7/x	
507	32,946	--	Ratanui (£1)	$2\frac{1}{8}$ $\frac{3}{8}$		$2\frac{1}{8}$ $\frac{3}{8}$	
852	67,000	$\frac{15}{16}$	Rim (Malacca) (£1)	$\frac{5}{8}$ $\frac{3}{4}$	+ $\frac{1}{16}$	$\frac{5}{8}$ $\frac{3}{4}$	+ $\frac{1}{16}$
920	50,000	S/S	Rotterdam-Deli Hevea (2/) .	/3 dis par		/3 dis par	
1,893	115,000	$1\frac{3}{8}$	Rubber Estates of Johore (15/ pd.)	$1\frac{1}{8}$ $\frac{3}{8}$		$1\frac{1}{8}$ $\frac{3}{8}$	
1,010	106,800	3/$1\frac{1}{2}$	Rubber Estates of Krian (2/) ..	3/ 3/6		3/ 3/6	
961	21,000	11	*Sagga	$10\frac{1}{2}$ $11\frac{1}{2}$		-	
2,060	100,000	$4\frac{7}{8}$	*Seafield (£1)	$4\frac{3}{4}$ 5		$4\frac{3}{4}$ 5	
920	175,000	$\frac{3}{4}$	Seaport	$\frac{5}{8}$ $\frac{7}{8}$		$\frac{3}{4}$ 1	
1,600	50,000	$2\frac{1}{4}$	*Selangor (2/) .. .	$2\frac{1}{8}$ $\frac{1}{4}$		$2\frac{1}{8}$ $\frac{1}{4}$	
552	50,000	$\frac{1}{2}$	Serangoon (£1) . .	$\frac{1}{4}$ $\frac{1}{2}$		$\frac{1}{4}$ $\frac{1}{2}$	
1,760	187,500	$3\frac{3}{4}$	*Seremban .	$3\frac{3}{4}$ 4		$3\frac{3}{4}$ $1\frac{3}{8}$	− $\frac{3}{32}$
640	65,000	3	*Shelford (£1)	$2\frac{5}{8}$ $\frac{7}{8}$	− $\frac{1}{8}$	$2\frac{5}{8}$ $\frac{7}{8}$	− $\frac{1}{8}$

CENTRAL AND SOUTH AMERICAN COMPANIES

Rubber Acreage Planted	Share Capital Issued.	Make up 12th July.	Share.	Stock Exchange. Closing	Stock Exchange. Rise or Fall.	Mincing Lane. Closing.	Mincing Lane. Rise or Fall.
—	300,000	—	Caamano Tenguel (£1)	$1\frac{1}{16}$ $\frac{3}{16}$		-	
16,000	97,490	/$10\frac{1}{2}$	Diamantino (2/)	/6 1/		-	
—	400,000	$\frac{5}{8}$	*Guayule (£1)	10/ 11/		—	
600	31,000	—	Henriquez Estates (2/)	1/3 2/3	− /3	—	
200	40,500	/$10\frac{1}{2}$	Henriquez South (2/) ..	/9 1/3		—	
2,100	40,000	2/	Jequié Rubber Synd. (2/)	1/9 2/3		—	
--	155,000	—	Pacaya (£1)	3/ 4/		—	
1,150	42,500	1/6	West Jequie (2/)	1/3 1/9		—	

CEYLON AND INDIAN COMPANIES

Rubber Acreage Planted	Share Capital Issued.	Make up 12th July.	Share.	Stock Exchange. Closing	Stock Exchange. Rise or Fall.	Mincing Lane. Closing.	Mincing Lane. Rise or Fall.
572	250,000	$3\frac{5}{16}$	*Anglo-Ceylon (£1)	3 $\frac{1}{4}$x		$3\frac{1}{8}$ $\frac{1}{4}$x	
1,338	60,000	—	*Assoc. Tea Estate (£10) ... Ord.	4 5		4 5	
	50,000	—	Pref.	11 12		11 12	
1,913	50,000	—	*Bandarapola	—		4 $\frac{1}{2}$	− $\frac{1}{8}$
641	80,000	2/3	Ceylon Consolidated (5/)	2/ 2/6		—	
2,659	60,000	8/	*Ceylon-Para (2/)	$\frac{5}{16}$ [illegible]	− $\frac{1}{16}$	7/6 8/	
181	90,000	—	*Ceylon Prop. Ordinary (£1) ...	$1\frac{1}{8}$ $\frac{3}{8}$		$1\frac{5}{16}$ $\frac{3}{8}$	
4,482	176,000	—	*Ceylon Tea Plant. (£1)	$6\frac{3}{4}$ $7\frac{1}{4}$		$6\frac{7}{8}$ $7\frac{1}{8}$	
8,270	70,000	—	*Consolidated Estate Ordinary (£1)	6 $\frac{1}{2}$		6 $\frac{1}{2}$	
2,554	90,000	$\frac{7}{8}$	Dalkeith (£1)	$\frac{3}{4}$ 1		—	
1,800	70,128	1/9	*Dangan (2/)	1/3 1/9		—	

EASTERN PLANTATION AND OTHER COMPANIES (*Continued*)

JAVA AND BORNEO COMPANIES

Rubber Acreage Planted.	Share Capital Issued.	Make up 12th July.	Share.	Stock Exchange. Closing.	Stock Exchange. Rise or Fall.	Mincing Lane. Closing.	Mincing Lane. Rise or Fall.
	£						
2,100	1,100,000	16/	Anglo-Dutch (£1)	16/ . 16/6		16/ 16/6	
11,000	400,000	5/6	Anglo-Java (£1)	5/ 6/		5/ 6/	
939	42,000	—	Bandjarsarie (£1)	$\frac{7}{8}$ $1\frac{3}{8}$		1 $1\frac{1}{4}$	
760	70,000	—	British Estates of Java (2/) ...	1/ 2/		—	
588	43,000	$\frac{1}{32}$	Daejan (Java) (2/)	/6 1/		—	
1,785	140,000	$\frac{3}{4}$	Java Amalgamated (£1)	$\frac{5}{8}$ $\frac{7}{8}$		$\frac{5}{8}$ $\frac{7}{8}$	
925	130,000	$\frac{5}{8}$	Java Para R. Estate (£1)	$\frac{9}{16}$ $\frac{11}{16}$		$\frac{9}{16}$ $\frac{11}{16}$	
2,072	30,139	$1\frac{7}{8}$	Java R. Plant (£1)	$1\frac{1}{2}$ 2		—	
3,190	110,000	—	Kasintoe (£1)	$\frac{9}{16}$ $\frac{11}{16}$		—	
500	100,000	—	Lok Kawi (£1)	$\frac{1}{2}$ $\frac{5}{8}$		—	
—	130,000	$1\frac{3}{8}$	Nirmala (£1)	$1\frac{5}{16}$ $\frac{7}{16}$		$1\frac{5}{16}$ $\frac{7}{16}$	
2,000	90,000	—	Pontianak (2/)	/9 1/9		—	
1,020	50,000	—	Sampang (Java) (2/)	1/6 2/		—	
989	75,000	—	Tangoel (£1)	$\frac{3}{4}$ 1		—	
1,363	120,000	1/	Tempeh (Java) (2/)	/9 1/3		/9 1/3	
—	80,000	—	Tjiliwoeng (£1)	2 $2\frac{1}{8}$		—	

AFRICAN COMPANIES

Rubber Acreage Planted.	Share Capital Issued.	Make up 12th July.	Share.	Stock Exchange. Closing.	Stock Exchange. Rise or Fall.	Mincing Lane. Closing.	Mincing Lane. Rise or Fall.
—	280,000	—	Amatongaland (10/ paid)	$\frac{1}{2}$ $\frac{1}{4}$ dis		—	
500	50,628	2/3	Avreboo (2/)	2/3 2/9		—	
—	85,000	1/	Boinsu (5/)	/10½ 1/1½		—	
715	35,000	/7½	Ilo Valley (2/)	/6 1/		—	
251	51,000	/6	Ilaro Rubber and Prod. (2/) ..	/6 1/		—	
—	94,000	—	Ivory Coast Corporation (£1) ..	$\frac{1}{2}$ $\frac{1}{4}$ dis		—	
1,501	70,000	—	Kifulu (2/)	1/9 2/3		1/9 2/3	
—	120,000	$\frac{1}{4}$	*Mabira (15/ paid)	$\frac{1}{8}$ $\frac{3}{8}$		$\frac{1}{8}$ $\frac{3}{8}$	
1,800	105,000	—	Mombo (2/6)	$\frac{1}{32}$ $\frac{3}{32}$ pm		—	
4,400	129,000	$1\frac{1}{4}$	*Muhesa (£1)	$1\frac{3}{16}$ $\frac{5}{16}$		—	
—	300,000	—	Nyassa (£1), 5/ paid	$\frac{3}{8}$ $\frac{1}{4}$ dis		—	
—	250,000	—	Pongola (10/ paid)	$\frac{1}{8}$ dis par		—	
—	25,000	—	Tirucalli Rubber Cum. Pref. (5/) ...	$1\frac{5}{16}$ $\frac{7}{16}$		—	

TRUST AND MISCELLANEOUS COMPANIES

Rubber Acreage Planted.	Share Capital Issued.	Make up 12th July.	Share.	Stock Exchange. Closing.	Stock Exchange. Rise or Fall.	Mincing Lane. Closing.	Mincing Lane. Rise or Fall.
—	50,000	—	Anglo-Straits (£1), 10/ paid ...	$\frac{1}{4}$ dis par		—	
—	1,000,000	—	Asia Caoutchouc Trust (£1) ...	$1\frac{3}{16}$ $\frac{5}{16}$		—	
—	400,000	$\frac{3}{8}$ dis	Brit. N. Borneo R. T. (£1), 10/ pd.	$\frac{7}{16}$ $\frac{5}{16}$ dis		$\frac{7}{16}$ $\frac{5}{16}$ dis	
—	—	—	„ Options ..	/3 /9		/3 /9	
—	230,800	$\frac{3}{8}$	Crude Rub. Wash'g (£1)	$\frac{5}{16}$ $\frac{7}{16}$		$\frac{5}{16}$ $\frac{7}{16}$	
—	250,000	/6 pm	East. Intnl. Trusts (£1), 15/ paid ...	$\frac{1}{8}$ dis par		$\frac{1}{8}$ dis par	
—	300,000	par	*Java In. Ln. and Agcy. (£1), 10/ pd.	$\frac{1}{16}$ dis par		$\frac{1}{16}$ dis par	
—	300,000	1/6	Madagascar Ord. (£1)	$\frac{1}{16}$ $\frac{3}{16}$		—	
—	*50,000	$\frac{1}{4}$	„ Pref. (£1)	$\frac{1}{8}$ $\frac{3}{8}$		—	
10,000	14,307	—	Pinner's Financiers (£1)	$1\frac{1}{2}$ $\frac{3}{4}$		—	
—	36,000	—	Rubber Estates T. and Inv. (2/) ...	1/9 2/		—	
—	40,221	—	Rubber Securities (£1), 10/ paid ...	$\frac{1}{4}$ dis par		$\frac{1}{4}$ dis par	
—	552,076	12/ pm	*Rubber Trust (10/ paid)	$\frac{7}{16}$ $\frac{9}{16}$ pm		9/7½ 9/10½ p.	+ /6
—	—	$\frac{1}{2}$	„ Options	$\frac{5}{16}$ $\frac{7}{16}$		9/ 10/	
—	54,185	$\frac{3}{4}$	„ and General Trust (£1) ...	$\frac{5}{8}$ $\frac{7}{8}$		—	
—	350,000	8/	„ Share Trust and Finance ...	$\frac{5}{16}$ $\frac{7}{16}$		$\frac{5}{16}$ $\frac{7}{16}$	
		/6	„ Options	/6 1/6		/6 1/6	
—	13,309	—	* „ Ventures (2/)	1/ 1/6		—	
—	150,000	—	Scottish Tea and Rubber Trust ...	$1\frac{7}{8}$ $2\frac{1}{8}$		37/ 38/	
—	500,000	$\frac{1}{16}$ dis	Vine and Gen'rl Trust Pref. (7/ pd.)	$\frac{3}{8}$ $\frac{1}{8}$ dis		—	

* Indicates that the company has paid a dividend or dividends during the past twelve months.

Abbreviated Names of Securities

The following is a list of the commonest abbreviated Stock Exchange names of securities:—

Americans or Yankees.—Generic name for Bonds and Stocks of U.S. railroads and industrial concerns dealt in on the London Stock Exchange.
Anglo A.—Anglo-American Telegraph Company deferred shares.
Anglos.—Anglo-American Telegraph Company ordinary shares.
Atch.—Atchison Topeka and Santa Fé Railroad common stock.
Atchink.—Atchison Topeka and Santa Fé Railroad income bonds.

Bags.—Buenos Ayres Great Southern Railway ordinary.
Bays.—Hudson's Bay Company shares.
Berthas or Brighton A.—London, Brighton, and South Coast Railway deferred ordinary stock.
Berwicks.—North-Eastern Railway consols.
Bex.—Bechuanaland Exploration Company shares.
British.—North British Railway ordinary.
Brums.—London and North-Western Railway ordinary stock.

Caley.—Caledonian Railway ordinary.
Canadas or Canpacs.—Canadian Pacific Railway shares.
Cenpacs.—Central Pacific Railway common stock.
Chartered.—British South Africa Company shares.
Chat Pref.—London, Chatham, and Dover Railway preferred.
Chats.—London, Chatham, and Dover Railway ordinary.
Coalers.—Certain U.S.A. railroads which derive the bulk of their traffic from the transport of coal.
Cuis.—Central Uruguay of Monte Video Railway ordinary.
Coras.—Caledonian Railway deferred.

Districts.—Metropolitan District Railway ordinary.
Doras or Dover A.—South-Eastern Railway deferred ordinary.
Dovers.—South-Eastern Railway ordinary.

Easterns.—Great Eastern Railway ordinary.

Fays.—Antofagasta and Bolivia ordinary.
Funds, The.—A comprehensive name for the various securities forming the national Debt and India Loans.

Generals.—London General Omnibus Company.
Gips.—Great India Peninsular Railway.
Goldfields.—Consolidated Goldfields of South Africa.
Goschens.—$2\frac{1}{2}$ per cent consols.
Grangers.—Certain U.S.A. railroads the bulk of whose goods traffic consists of the carriage of grain.

Haddocks.—Great North of Scotland Railway ordinary.

Johnnies.—Johannesburg Consolidated Investment Company shares.

Kaffirs.—South African Mining Land and Investment Companies' shares.
Kangaroos.—Shares in West Australian Mining and Land Companies.
Khakis.—The South African War Loan.

Leeds.—Lancashire and Yorkshire Railway ordinary.
Leos.—Leopoldina Railway Company.
Little Chathams.—Arbitration "ordinary" stock of the London, Chatham, and Dover Railway.

Mails.—Mexican Railway ordinary.
Middies.—Midland Railway ordinary.
Milks.—Chicago, Milwaukee, and St. Paul Railroad common.
Mists.—Mexican Railway first preference.
Modder B's.—Modderfontein B. Gold Mines shares.
Modders.—New Modderfontein Gold Mining Company shares.

Noras or York A.—Great Northern Railway deferred.

Oceans.—Oceana Consolidated Company shares.

Penns.—Pennsylvania Railroad common.
Potts.—North Staffordshire Railway ordinary.

Rosics.—Buenos Ayres and Rosario Railway ordinary.

Saras or Sheff A.—Manchester and Sheffield Railway deferred.
Sheffs.—Manchester and Sheffield Railway ordinary.
Slops.—Allsopps Brewery ordinary.
Slubbers.—Bradford Dyers.
Soo.—Minneapolis, St. Paul, and Sault Ste. Marie Railroad.
Soups.—Southern Pacific Railroad common.
Souths.—London and South-Western Railway ordinary.

Terrors.—Northern Territories Goldfields of Australia.
Trunks.—Grand Trunk Railway of Canada stock.

Wabbons.—Wabash Railroad debentures.
Ways.—West Australian Goldfields.
Westerns.—Great Western Railway ordinary.

Yorks.—Great Northern Railway ordinary.

FOREIGN STOCK EXCHANGES

With the development of commerce and industry and the growth of accumulated capital, Stock Exchanges come to assume more and more importance in a country. Consequently, in Europe and in the United States, these institutions play a very important part in the economy of the country. In a country like Canada, which is no longer in the early stage of its development, but has not yet a large amount of accumulated surplus capital available for investment in Stock Exchange securities, the Stock Exchanges are not as important as those of Europe or the United States, but are rapidly

growing; and in countries in an even earlier stage of development, such as those of Brazil, Peru, and United South Africa, the Stock Exchanges are minor institutions, quite local in character.

Generally speaking, in foreign countries the Stock Exchanges are much more under Government control than in the United Kingdom; they are usually semi-official institutions, and are often managed by the local Chamber of Commerce, itself a semi-State institution. In its main lines business is transacted in much the same way as on the Stock Exchanges of the United Kingdom, except that the institution of the jobber is practically unknown, broker dealing direct with broker. In many foreign Stock Exchanges banks are members, and much of the business is done by their representatives; in a number of the Stock Exchanges, also, members of the general public are allowed to enter the building.

The great difference of practice between most of the foreign Stock Exchanges and those of the United Kingdom is in the matter of interest on bonds and debentures. In the United Kingdom it is the custom that the current quotation always includes interest up-to-date—that is to say, that an individual purchasing London, Brighton, and South Coast 4½ per cent Debentures at the price of 109 per cent in the month of May would receive on 1 July payment of a full six months' interest, that being allowed for in the price; with the consequence that, after 1 July, the price, apart from any other reasons, would automatically fall two points, or slightly more, that being the value of the interest no longer included in the price. On most foreign Stock Exchanges, however, the quotations for bonds and debentures are "and interest"; that is to say, in addition to the price, the purchaser has to pay the equivalent interest from the date of the last payment up to the date on which he takes delivery. This is the practice on the German, Austrian, Belgian, and Swiss (with the exception of Geneva) Bourses, the Paris practice, however, being similar to our own. This system has spread to the United States, where it is generally adopted, and is also the practice on the Montreal Stock Exchange. It is undeniably the more logical practice, for the system of including accrued interest in the price gives securities the appearance of fluctuating when such is not the case.

The following notes draw attention to the principal classes of securities dealt in on the foreign Stock Exchanges:—

Berlin.—The business done on the Berlin Bourse is both extensive and varied, but chiefly in securities of German undertakings, the formation of which into limited companies is much encouraged by the German banks. Large dealings also take place in Russian and Austrian industrial securities and in Canadian and American rails.

Hamburg.—About 700 securities are quoted on the Hamburg Bourse, including German national and municipal loans, loans of foreign states, municipalities and banks the bonds and shares of industrial companies, particularly local concerns, and those of shipping companies and colonial and produce companies. A special feature is the business done in the securities of North European states and municipalities, i.e. Denmark, Norway, and Sweden, and in the bonds of banks in those countries.

Frankfort-on-Main.—The Frankfort Bourse is almost as important as the Berlin Bourse, and is more of an international market. Otherwise the nature of the business transacted is similar.

Paris.—The business done on the Paris Bourse, which is of international importance, is of the most extensive and varied nature, ranging from government loans, particularly Russian and Turkish, to shares in rubber companies and South African gold-mining companies the turnover in the latter being very large.

Brussels.—Brussels deals largely in securities quoted on the Paris Bourse, with which it is in close connection.

Antwerp.—The securities of Central and South American states, municipalities, and banks form a special feature of the Antwerp Bourse, numerous Argentine, Brazilian, Chilian, and Mexican loans being officially quoted. A large number of loans of other foreign countries appear in the price list, notably Russian and Rumanian. The home national and municipal loans are, of course, also dealt in, and this is also a market for various Congo securities.

Amsterdam.—A good number of securities of foreign states and municipalities, particularly Russian, are dealt in on this Bourse. The debentures and shares of banks and industrial concerns, particularly tea, rubber, and petroleum companies operating in the rich Dutch colonies are, however, its speciality. Another feature is the large number of American railroad bonds and shares dealt in.

St. Petersburg.—The quotation of foreign securities on Russian Bourses is forbidden by law, unless permission of the Ministry of Finance and the Russian Foreign Office is obtained. At the commencement of 1911 the St. Petersburg official list contained about 170 securities, including 26 government loans, the bonds and shares of agricultural banks, and the shares of shipping, insurance, and industrial companies, &c.

Budapest.—There is practically no business in foreign securities on this Bourse. The Hungarian and Austrian national loans are dealt in as well as the shares of many industrial and transport companies. The bonds and shares of the numerous Hungarian mortgage and savings banks are also very largely dealt in, and constitute a special feature of this Bourse.

Geneva.—The Swiss federal, municipal, and communal loans are dealt in on the Geneva Bourse as well as the loans of a few foreign governments and municipalities. The bonds and shares of a good number of foreign railway companies are quoted, a fair proportion being American. There is also considerable business

in the debentures and shares of home and foreign industrial companies and a few South African mining companies.

Zurich.—The Zurich Bourse is the most important in Switzerland. The Swiss federal, municipal, and communal loans, a few foreign loans, and the securities of home and foreign railways, banks, and industrial concerns, particularly the latter, are dealt in.

Vienna.—Home national and municipal loans are dealt in on this Bourse, as well as a few foreign loans. As on the Budapest Bourse, the dealings in the bonds and shares of mortgage and savings banks are a special feature. Many shares and a few debentures of industrial undertakings (including transport companies) are also dealt in.

New York.—The Wall Street market is not an international market like London, the securities quoted being almost exclusively American stocks. On the other hand, American securities are largely dealt in on European Bourses, the telegraph connections having been brought to a high state of perfection. The greater part of the New York official list is taken up by quotations of railway bonds and stocks, but U.S. government and state loans, particularly New York City and State, one or two foreign loans (Japanese and Russian, for instance), and the securities of manufacturing and industrial corporations are largely dealt in. Trust companies, a few mining companies, &c., are also dealt in. Mention should also be made of the famous Curb Market, where the securities dealt in (chiefly industrials) are sometimes very important—Standard Oil stocks, for instance; many, however, are very doubtful.

Philadelphia.—The business transacted on the Philadelphia Stock Exchange is very similar to New York, with which it is in close connection. Railroad securities take the first place.

Boston.—Next to railroad securities, mining stocks are the chief feature of the Boston Stock Exchange. Many miscellaneous securities, a few U.S. government bonds, and a few Land and Telephone Company stock are also dealt in.

Chicago.—The bonds of numerous Chicago banks and Trust companies are dealt in on this Exchange. There is also business in railroad stocks and bonds and those of industrial concerns, including several packing companies.

Montreal.—Mostly securities of industrial concerns (asbestos, paper and pulp, iron and steel, &c.) are dealt in on the Montreal Stock Exchange. There is also business in the shares of Canadian banks, and a special feature is the business in the securities of Latin-American tramway and lighting companies, resulting from the activity of a group of Canadian financiers.

SMALL STOCK INVESTMENTS THROUGH THE POST OFFICE

The British Post Office provides facilities for the small investor for the purchase and sale of Government Securities. Any person who opens a Savings Bank account can buy Government Stock in small amounts, as low as 1*s.*, the Post Office acting as broker or agent and making a charge of a commission on Stock not exceeding £25, 9*d.*; £50, 1*s.* 3*d.*; £75, 1*s.* 9*d.*; £100, 2*s.* 3*d.*; £200, 2*s.* 9*d.*; and so on at 6*d.* per cent. There is little or no trouble or delay, and investments in Consols can usually be made on the day of application, and in other Government Stock in a few days. (See also Volume 1, p. 138, treating of the business of the Post Office).

CHAPTER VII

THE LAW AND CUSTOM OF THE STOCK EXCHANGE

The Contract—Outside Brokers—Gaming—Dealing in Stocks and Shares—Failures—Mortgage and Blank Transfer—Trustee Investments.

The method of transacting business on the Stock Exchange is dealt with in the preceding chapter of this Part. The legal rights and liabilities arising in connection with such business are considered below. The London Stock Exchange is referred to unless otherwise stated. The relationship between the client and stockbroker is a special instance of that of principal and agent, and consequently the law applicable to the one is equally applicable to the other (see Part III, Chapter II); but it calls for separate treatment owing to the complicated nature of the subject-matter of the contract which the broker makes on behalf of the client.

THE CONTRACT

It is the duty of the broker to make a binding contract on behalf of his client with a third party in accordance with the Rules, Regulations, and Customs of the Stock Exchange, and strictly in accordance with his client's instructions. The instructions must be definite and not misleading; if the broker effects an erroneous contract by reason of misleading instructions, any loss incurred in setting the matter right would fall upon the client. On the other hand, the broker must use reasonable care, and, if the instructions are obviously ambiguous, he has no authority to put his own interpretation upon them; he must refer the matter back to his client before acting, otherwise he will be responsible for the loss. As a special instance of instructions which are difficult to execute may be taken the common case where a client who has bought shares, say, at £3 instructs his broker to sell the same should they fall to £2, the intention of the client being to cut his loss at £1 per share. The difficulty of carrying out such instructions lies in the fact that in a nervous market the price of the shares might drop suddenly from £2½ to £1 and never be saleable at £2. The broker is then in this quandary: if he sells at £1 his client might repudiate the bargain, whilst if he delays the price may further decline before he can get instructions. A broker should never accept such instructions without pointing out to his client that he will take no responsibility in the matter, but will do his best to catch the falling market at £2, or, failing that, not sell at all.

A broker must execute his instructions with the care usual to an experienced agent. If he is instructed to buy at £3, and he carelessly omits to purchase when the shares can be bought at the price, either because in the pressure of business he has entirely overlooked the instructions, or because he has not watched the market, he would be liable to his client for any loss incurred by reason of the price rising above £3. The measure of the damage would be the difference between £3 and the price to which the shares had risen at the time when the client discovered, or ought to have discovered, that his instructions had not been carried out. A broker is, of course, not obliged to accept instructions, but if he does accept he

must carry them out. It is the practice of brokers, upon discovery of the mistake, to buy the shares at the enhanced price and book the bargain to the client in accordance with the client's limit, paying the difference themselves.

The broker must make the contract with a third party. He cannot himself buy his client's shares or sell his own shares to his client; if he does so, the client may repudiate the contract as soon as he becomes aware of the true state of affairs. If, however, the broker fully disclosed to the client that he was acting on behalf of himself, the client would have the right to repudiate the contract, but unless he did so forthwith, it would be binding upon him. In carrying over shares (as to which see the preceding chapter of this Part) it is a common practice for a broker to lend his own money, charging his client the market rate. Although the practice is quite well known, and is often of advantage to the client as tending to make the market firmer, nevertheless he must disclose the fact to his client. It is sufficient if a general statement be printed on the carrying-over contract (or, as it is called, the continuation note) to the effect that the broker may lend his own money. A broker is entitled to purchase shares in one parcel from a dealer and apportion them out in his books to his respective clients who have severally instructed him. It is in the clients' interests for him to do so, for by purchasing in one lot instead of a number of smaller parcels he may obtain them cheaper.

Contract Stamp

Contracts effected by brokers on behalf of clients must be duly stamped. The failure to stamp the contract does not make it void, but the contract cannot be given in evidence; moreover, the broker who fails to send a contract, or duly to stamp it, is liable to a penalty. Contracts between inside brokers and outside brokers need not be stamped, provided that the outside broker enters his name at Somerset House in a list provided for the purpose. At one time outside brokers were accustomed to deal direct with dealers on the Stock Exchange, but the Rules now prohibit dealers transacting business with non-members.

Rules, Regulations, and Customs

The contract is made in accordance with the Rules, Regulations, and Customs of the Stock Exchange, and the fact is usually printed on the contract note. Rules, Regulations, or Customs which are not reasonable would not be enforced by the Courts, but otherwise they are binding if the client has knowledge of them, or ought to have known of them. It is probably impossible for him to escape, on the score of ignorance, the obligations imposed by the Rules and Regulations of the Stock Exchange, inasmuch as they are in print, their existence is disclosed in the contract note, and it is the client's own fault if he does not take the trouble to ascertain what in fact they are. But it may well be that a particular custom is not known to him.

It is unnecessary to set out the Rules and Regulations here. To a very large extent they concern the members of the Stock Exchange only, and not non-members; where they are of importance to non-members they will be referred to below either directly or inferentially. They consist of 178 Rules having reference to the following main heads: (1) Committee; (2) Re-elections, Admissions, and Re-admissions; (3) Partnerships; (4) Clerks; (5) General Rules; (6) Bargains and the Settlement of Accounts; (7) Government and Corporation Inscribed or Registered Stocks, &c.; (8) Securities passing by Delivery; (9) Buying-in and Selling-out; (10) Special Settlements and Official Quotations; (11) Official Lists and Marking of Bargains; (12) Failures.

Under the Rules and Regulations a broker must not make a contract on behalf of his client *with a non-member*, unless he discloses the fact to his client; and in any case he must not receive brokerage from such non-member. Indeed, a broker is not permitted to receive brokerage from more than one client when the transaction is carried through directly between two clients. A broker may not deal with a non-member unless it is to the advantage of the client. A case where the client obviously reaps the benefit is where the broker chances to have one client buying and another client selling the same shares. By putting the transaction through between the two clients they each save the market turn, but the broker loses one commission. The broker may, however, put the business through a dealer in the usual way.

A broker is entitled to charge brokerage or commission for his services. If the commission is not agreed between the broker and client, then the commission to be charged must be a reasonable commission. The commission usually varies according to the nature and amount of the security dealt in. In order to avoid the possibility of unpleasant disputes, it would be well, before instructing a new broker, to apply to him for a scale of his charges. In June, 1912, the Committee laid down that members may not charge less than a minimum commission A broker cannot obtain a secret commission either directly or indirectly

by reporting a bargain at a different price than that at which he in fact did it. To take such secret commission would vitiate the transaction upon it being discovered, in addition to subjecting the broker to the danger of a criminal prosecution. (See Part III, Chapter II.)

OUTSIDE BROKERS

Outside brokers are those who are not members of the Stock Exchange, and in consequence are not subject to the disciplinary rules of the Stock Exchange affecting its own members. Consequently, from a mere business point of view, the public run much more risk in dealing with outside brokers than with members, apart from the well-known fact that the business carried on by outside brokers is often a fraudulent one to induce ignorant investors to part with their money. As outside brokers may advertise (an indulgence forbidden to members by the Rules) they are able to get more into touch with the public than members can. It is usual for the outside broker to make his contracts in accordance with the Rules, Regulations, and Customs of the Stock Exchange, but in reality many of the Rules are not applicable to such a contract at all. An outside broker is in any case bound by the law affecting agents. Usually he is obliged to effect the business entrusted to him by his client through a broker who is a member of the Exchange; the inside broker wants his commission, and the client naturally will not pay two commissions. If the outside broker adds the commission that he pays to the inside broker to the price at which he reports the bargain to his client, and conceals the fact from him, the bargain can be repudiated; or if the inside broker reports the bargain at a net price to the outside broker without informing the outside broker the brokerage he has made out of the transaction, the client of the outside broker can nevertheless repudiate the transaction unless he is aware of the facts—*Johnson v. Kearley* (1908). Trustees who invest trust money through the agency of outside brokers would be in danger of being held liable for the loss of the money by reason of the fraud or insolvency, &c., of the broker. Many so-called outside brokers do not act as brokers at all, but as principals. In other words, they do not buy and sell *on behalf of* their clients, but buy direct *from* and sell direct *to* their clients usually at a net price, for commission is only appropriate to agency. Such bargains are valid, but members of the public constantly fail to appreciate that such outside brokers are not really acting in the interests of their clients, as the name stockbroker, under which they pass, would imply, but are acting against their clients in making the best bargain for themselves that they can.

GAMING

Speculations in Stock Exchange securities may amount to gaming, in which case the contracts would not be enforceable. But although a large number of Stock Exchange transactions are entered into for speculation purely, nevertheless it is generally impossible to impugn such transactions on the ground of gaming. If the transactions are carried out by a broker in the regular mode, they are not gaming transactions although the known intention of the client may be not to take up and pay for the shares he has bought, but to carry them over until such time as he decides to sell, whether at a loss or at a profit, and in the meantime receive or pay the differences due from account to account. (See Chapter VI of this Part.) The reason is that if the broker, although aware of his client's intention, has not agreed to fall in with such intention, he may, at any time, compel his client to complete the transactions he has effected on his behalf, and may refuse to carry over; and even if he has bound himself by contract to carry over, still the contracts which the broker effects are with third parties who know nothing of the arrangement between the client and broker, so that such contracts as between the client and the third parties cannot be gaming contracts.

But there is considerable business done outside the Stock Exchange which is of purely a gaming character. It amounts to mere bets on the rise and fall of the market price; the true character of such business is to be recognized from the fact that no enforceable bargains are made to buy and sell the shares. On the Stock Exchange, whatever the intention may be, there is, in fact, a real enforceable contract to buy and sell shares; in the case in question there is none. Many subterfuges are employed to make it appear as if there was an enforceable contract, but the Court looks at the substance of the transaction. In order to protect themselves against the consequences of the Gaming Acts, these gaming houses or *bucket*

shops commonly deal on what is known as the cover system. The system assumes various forms, but the object is to obtain security from their clients which can be set against losses as soon as incurred; for once a gaming debt has been paid, the money so paid cannot be recovered. A person who has deposited in this way security can recover the same at any time before it has been actually set off against losses. If the security is money, there is a set-off as soon as the loss is incurred; but if the security has to be converted into money, e.g. if it be in the form of stocks and shares, the owner can recover it at any time before it has been so converted, even though he has incurred the gaming debt—*Universal Stock Exchange v. Strahan* (1896). Outside brokers who carry out their clients' instructions by effecting bargains with third parties on the Stock Exchange or otherwise are in no more danger of the Gaming Acts than inside brokers.

DEALING IN STOCKS AND SHARES

The Dealer or Jobber

In the general case the broker effects his client's business with a dealer or jobber, i.e. a member who holds himself out as a principal to buy or sell in any particular market, e.g. home railways or mines. (See Chapter VI of this Part.) The dealer is a principal and not an agent, and in that capacity makes the best bargain for himself that he can with the broker. If the matter rested there, the legal position would be that the broker had effected a binding contract between two principals, viz. his client and the dealer. If the dealer fails to complete his bargain, e.g. to purchase the shares, the client has no remedy in law against the broker, provided that the broker acted with due care in dealing with the particular dealer. In practice it is usual for brokers of standing to bear any loss which their clients would be put to by the failure of a dealer to complete. On the other hand, if the client fails to complete, the dealer is entitled to look to the broker by virtue of the Rules and Regulations (which make all members principals), and the broker is left to his indemnity against the client.

Intermediate Parties

But in the majority of cases the transaction does not end with the dealer. The dealer resells to another member, maybe a fellow dealer who needs the shares to complete some transaction he has effected, or maybe to a broker acting upon his client's instructions. (See Chapter VI of this Part.) The liability of a dealer who has purchased shares for the next account day is that on that day he will either take the shares himself, and be bound himself to accept and register a transfer, and to indemnify the vendor, or give the names of one or more transferees to whom no reasonable objection exists, and who will accept and pay for the shares. And if he takes the latter course, and the names are accepted by the vendor and transfers executed to them, and the transfers are taken and paid for by those transferees or their brokers, the liability to register the shares and indemnify the vendor is shifted to those transferees, and the dealer is relieved from all further liability. But the liability of the dealer continues entire and unbroken until there is an acceptance of the purchasers by the vendor, and an acceptance of the transfers by the purchasers or their brokers; and they are not discharged therefrom by merely paying the agreed price and giving a name as that of a purchaser, if that name should be objectionable or the person named refuses to accept the shares — *Coles v. Bristowe* (1869). The name must be the name of a competent purchaser before the dealer is released, e.g. an infant is not a competent person—*Nickalls v. Merry* (1875). The broker who passes the name warrants the existence and competency of the person, and that he has authority to pass the name. The matter is of importance when the shares are not fully paid, for if the Company goes into liquidation and the transferee does not pay the calls, the transferor within the year can be called upon to do so. (See Part III, Chapter IV.) There may be and often are as many as twenty subsales. In such a case it is the broker's object to bring the ultimate buyer and seller together. It is not necessary here to enter into a detailed explanation of the manner in which the broker who sells ascertains who is the ultimate buyer. In the case of most active stocks and shares it is done by the machinery of a Settlement Department on the analogy of the Bankers' Clearing House. It is sufficient for the purpose of discussing the legal liabilities which arise briefly to describe the method in the case of securities deliverable by deed of transfer. The member, e.g. the broker of the ultimate buyer, issues a ticket with his name as payer of the purchase money, which ticket contains the amount and denomination of the security to be transferred; the name, address, and description of the ultimate buyer in

full; the price, the date, and the name of the member to whom the ticket is issued, that is, the member who sold the shares to the broker; this member then passes the ticket on to the member from whom he bought the shares, endorsing his name thereon, and so it is passed to each intermediate seller until it reaches the broker of the ultimate seller. For example, A instructs B to sell certain shares; B accordingly sells to C, C to D, D to E, and E to F, who buys for a non-member named G. At the proper time F fills up a ticket with his own name thereon, setting out the full name and address of G, &c., and passes the ticket to E, who passes it to D, and so on till it reaches B. B with the material thus supplied to him can draw up a deed of transfer of the shares he has sold on behalf of A, obtain A's signature to the deed, and deliver the same with the share certificate direct to F, the broker of the ultimate buyer. (In this illustration the arrangement of the tickets by the Settlement Department has been ignored.)

It will be noticed that the consideration money inserted in the deed of transfer is the price on the ticket, that is the price paid by the ultimate buyer. This is commonly a very different price from that actually received by the seller of the shares, for the simple reason that the shares have been re-sold many times at prices varying from day to day. The original seller receives the price at which he sold, the ultimate buyer pays the price at which he bought, and the intermediate sellers arrange the payment of their losses or profits by a machinery which need not be described here, as it concerns members of the Exchange solely. It is not until the ultimate buyer has paid the price to the ultimate seller, and the seller has signed a transfer, that there is a contract between them which the Court will enforce by specific performance and that the intermediate parties are released—*Musgrave & Hart's case* (1867).

If the ultimate buyer's broker makes default in payment, the next member on the *trace*, that is, the member from whom the ultimate buyer's broker purchased, is liable, and if he makes default the next member on the trace is liable, and so on until finally the member to whom the original selling broker sold. Indeed the selling broker may, if he elects to do so, demand payment from the member to whom he sold without applying for payment at all to the ultimate buyer's broker. This is only done where the selling broker has reason to doubt the solvency of the buying broker, and does not wish to be troubled with a possible defaulter, or does not approve the name of the ultimate buyer where there is an existing liability on the shares. The liability of intermediate parties may be released in some cases before payment by the ultimate buyer. For instance, if securities deliverable by deed of transfer are not delivered within ten days, the issuer of the ticket may buy-in the same against the seller on the eleventh day after the ticket day, or *on any subsequent day*. (See Chapter VI of this Part.) But if the issuer of the ticket allows thirteen clear days from the ticket day to elapse without buying-in or attempting to buy-in, his seller is released from all liability in respect of the non-delivery of the shares, unless the right to buy-in has been waived at his seller's request or with the consent of his seller. In case of the release of an intermediate seller, the original seller, that is, the holder of the ticket, is alone responsible to the issuer of the ticket for the delivery of the shares. So if the seller of shares has not received a ticket by 2.30 o'clock on the ticket day, he may sell out the shares up to 3 o'clock on that day or any subsequent day. But if the seller does not avail himself of the right to sell out within two clear days from the time the right accrues, his buyer is released from all loss in cases where the ticket has not been passed in consequence of the public declaration of any member as a defaulter (see p. 61).

The Stock Exchange Committee have power to suspend the buying-in rule where circumstances appear to them to make such suspension desirable in the general interest. The rule provides that the liability of intermediaries continues during such suspension unless otherwise determined by the Committee, but in *Union Corporation v. Charrington* (1902) the Court held that the Committee have no jurisdiction to suspend the liability. The power is intended to be used to prevent a *fraudulent corner* in shares.

Bargains and the Settlement of Accounts

The Consol settlement is monthly; the ordinary settlement is fortnightly, consisting of the Mining Contango day, the General Contango day, the Ticket day, and the Account day, and bargains are for the current account unless otherwise specified. (See Chapter VI of this Part.) A person who deals for the current account must be prepared on the Account day to pay for the shares bought, or deliver the shares sold, as the case may be, unless he intends to carry them over.

Continuation Bargains

Shares are carried over on the Contango day. By carrying-over shares a person defers payment or delivery of the shares he has bought or sold for

another account. It, in fact, amounts to a loan of money or of shares for a fortnight, in respect of which the borrower pays interest upon the value of the shares. In law it amounts to a purchase and sale of the shares, or a sale and purchase as the case may be. For instance, a person buys 100 shares at £3 per share for the mid-monthly account, say May 15. His obligation accordingly is to pay £300 on May 15. On the Contango day he carries over the 100 shares at the making-up price, £2½ (see Chapter VI of this Part); that is, he sells 100 shares at £2½ to close the bargain for May 15, and at the same moment buys them back at £2½ for the end of the month settlement, say May 29. He receives duly stamped sale and purchase contract notes, and his position is now that he must pay £50, the difference between the purchase and sale due on May 15, together with the market contango or interest on £250, and he is under an obligation to pay £250 on May 29. In the same way he may defer payment from account to account if his broker is willing to execute his instructions. The transactions, although for the purpose of a loan, are in law contracts of sale and purchase. This is shown clearly by the fact that the person who lends the £250, and so takes up the shares for the time being instead of the buyer, is not in the position of a mortgagee, for he can do what he likes with the shares, being under no obligation to redeliver the identical 100 shares; whereas a mortgagee who receives 100 shares as security for a loan is under an obligation to return the very shares delivered to him. Rule 97 recognizes the true legal position, for it provides that "a lender is not entitled to place beyond his control securities received as security for a loan; and may, after reasonable notice, and upon payment of the principal, together with interest up to the time for which the loan was originally made, be required to return the identical bonds, or to re-transfer the securities given as a security for such loan. *This liability does not apply to a member who has taken in securities upon continuation.*"

When shares are carried over, the differences with the interest or contango, as explained above, are due on the Account day. If the broker is not put in funds by his client to meet such differences, he is entitled to close the client's account. If he intends to avail himself of this right, he must close the whole account or none at all, and at the same time. He is naturally excused from liability, if, in fact, it is impossible to close part of the account, there being no buyers, or some other good reason. A broker has no authority to carry over shares after the death of his client, and he should accordingly close the account—*in re Overweg* (1910).

Payment

It is the duty of the client to put the broker in funds to enable him to pay for shares purchased on his account. The broker is under no obligation to provide his own money for this purpose, and in practice he seldom does, as it would not only require immense financial resources in busy times, but it would prevent the broker from using his available money on the market in carrying over shares for interest. If the broker is not put in funds, he can close the account and charge his client with the loss, if any. He may also sell if he hears of his client's insolvency—*Crowley's Claim* (1874). If he pays for the shares he has a lien upon them until reimbursed by his client. (See Part III, Chapter XII.) Indeed he has a *general* lien upon his clients' shares for moneys due to him even though the debt arose subsequent to the time when the shares upon which the lien is claimed came into his hands. It was decided by the House of Lords in *Hope v. Glendenning* (1911) that the law of Scotland is the same as the English law in this respect. But a broker has no lien upon shares which he knows were never the property of his client, e.g. where the client is a solicitor acting on behalf of his client. If the broker has paid for the shares, the client must reimburse him even though the Company refuse to register him as a shareholder. If the Company goes into liquidation before the transfer is registered, the purchaser must indemnify the seller against calls made in the winding-up.

Delivery

The seller is bound to make a good delivery of the securities he has sold, and in the time prescribed by the Rules, otherwise they will be bought-in against him. In the case of securities which pass by delivery merely, the broker, as a member of the Exchange, is responsible for the genuineness of the securities, and in case of his death, failure, or retirement from the Stock Exchange, such responsibility attaches to each member in succession through whose hands the securities, or the ticket representing such securities, have passed. The client is bound to indemnify the broker in respect of this liability, but only to the extent of the sum he received on the sale.

The client can only deliver securities of the particular class dealt in on the Stock Exchange. Thus there may be 100,000 ordinary shares of a Company numbered 1 to 100,000 respectively, 10,000 of which are vendors' shares, numbered 1 to 10,000 respectively. If the Stock Exchange has granted a settlement in the non-vendor shares

only, a delivery of vendor shares would be a bad delivery, and the client would be liable for any damage caused by the broker being unable to carry out the contract he had made.

The deliverer may, previous to delivery, pay any call on registered securities, although not due, and claim the amount of the issuer of the ticket.

Forged Transfers

Whatever may be the respective rights between the Company and a person who has been registered as a shareholder on the faith of a forged transfer (see Part III, Chapter IV), the member of the Stock Exchange who has delivered a transfer which the Company refuses to register because the true owner of the shares has claimed to be reinstated must deliver other shares to the buyer, and his client must indemnify him accordingly. The same position arises if the buyer is registered and his name is subsequently struck off the register because his title is traced through a forged transfer.

But when an official certificate of registration has been issued the Committee will not, unless bad faith is alleged against the selling broker, take cognizance of any subsequent dispute as to title until the legal issue has been decided, the reasonable expenses of which legal proceedings must be borne by the selling broker. His client must indemnify him.

The broker can tender to his client a transfer for part of the shares purchased, for he is not obliged to obtain delivery in one parcel. If the seller delays delivery beyond the time allowed by the Rules, and the purchaser informs his broker that he will not accept delivery by reason thereof, the broker cannot force him to accept even though the Committee compel the broker to accept delivery—*Union Corporation v. Charrington* (1902).

Most bonds to bearer being negotiable instruments, it is seldom that a delivery can be impeached. (See Part III, Chapter VII.)

Dividends and Rights

The holder of shares may be entitled to valuable rights in respect of them, either in the form of a dividend, or a right to apply for new shares, or to receive bonus shares, &c. If he sells the shares, the Rules and Regulations of the Stock Exchange provide to what extent such rights belong to the buyer, and as the Rules are binding upon the parties few difficulties can arise as to the rights of the parties on the contract. In accordance with general rules, a security is quoted ex dividend or ex rights on a certain day, e.g. securities dealt in in the mining market are quoted ex dividend on the Account day following the payment of the dividend. A person who buys on or after the day when the shares are quoted *ex dividend* is not entitled to that dividend; if he buys before the day he is entitled to it irrespective of the fact that the seller may not have been paid it by the Company at the time that the shares are transferred. If the shares are bought *cum dividend*, the selling broker is responsible to the buyer for such dividends as may be received, unless an unreasonable time has been taken by the buyer to execute and lodge the documents for registration. The selling broker looks to his client for an indemnity, as it is the client who has received the dividend in fact. If, however, the client cannot pay, for example, by reason of insolvency, then the loss falls on the broker, who, as a member of the Stock Exchange, must obey the Rules. In the settlement of all bargains dividends are to be accounted for at the net amount receivable after deduction of income tax. The buyer of securities for Special Settlement (see Chapter VI of this Part) is entitled to all dividends and option rights to allottees accruing thereon up to the date fixed for settlement.

When a buyer is entitled to new securities in right of old, the seller is usually able, by the modern practice of companies, to fulfil his obligation by delivery to the buyer of a Letter of Renunciation, that is, a form signed by him by which he renounces his right to apply for the new shares in favour of the buyer. In these cases the buyer applies for the shares in his own name, and pays the application money and calls as they become due. But where Letters of Renunciation are not issued by the Company, all payments as and when required by the Company are to be advanced to the seller by the buyer, who may demand a receipt for the same, such payments being for securities to be delivered at the special settlement.

The Stock Exchange Committee forbids bargains for prospective dividends, and may expel members making such bargains. Nevertheless such a contract is good in law whatever may be the penalty enforced by the Rules—*Martin v. Gibbon* (1875).

Special Settlement

When no time is specified, bargains in new securities, for which a Special Settlement has not been appointed, are for the Special Settlement (as distinguished from the Ordinary Settlement).

Three days' public notice of any application for a Special Settling day in the shares or other securities of a new Company must be given previous to any application to the Committee of the Stock

Exchange, who will appoint a Special Settling day provided that sufficient certificates or scrip are ready for delivery. The Committee will not entertain an application for a Special Settling day for bargains in shares or securities issued to the vendors to the Company, credited as fully or partly paid, until six months after the date fixed for the Special Settlement in the shares or securities of the same class subscribed for by the public; but this does not necessarily apply to reorganizations or amalgamations of existing companies, or to cases where no public shares are issued, or where the vendor takes the whole of the shares issued for cash. The following documents and particulars should be sent to the Secretary of the Shares and Loan Department when application is made for a Special Settlement: *A*. In the case of shares of new companies: (1) The certificate of incorporation. (2) A specimen of the share certificate. (3) A copy of the prospectus, the statement in lieu of prospectus as filed with the Registrar of Joint-Stock Companies, or advertisement relating to the issue. (4) A specimen call letter. (5) Certified printed copies of contracts relating to the issue of shares credited as fully or partly paid. (6) A letter from the secretary of the company stating that (*a*) the share certificates are ready to be issued; (*b*) the distinctive numbers of the shares allotted respectively to the public and to the vendors; (*c*) the particulars of the company's capital; (*d*) the nominal amount of each share, and the amount paid in cash or credited as paid on each share; (*e*) in cases where the whole of the capital has not been issued at the time the application is made, whether the unissued shares are vendors' shares or are held in reserve for future issue. *B*. In the case of stock or debenture stock of new companies: (1) A specimen of the scrip or stock certificate. (2) No. 3 above. (3) A letter from the secretary of the company stating (*a*) the amount allotted respectively to the public and others; (*b*) the amount paid in cash per £100 stock; (*c*) that the scrip or stock is ready to be issued.

Official Quotations

The Committee may order the quotation in the official list of any security of sufficient magnitude and importance. Applications for official quotations must comply with the special conditions and requirements under the Rules. A broker, a member of the Stock Exchange, must be authorized to give the Committee full information as to the security, and to furnish them with all particulars they may require. Securities issued to vendors credited as fully or partly paid cannot be quoted until six months after the date fixed for the special settlement of the securities of the same class subscribed for by the public, nor unless a quotation for the latter is also granted.

Complaints by Non-members

If a non-member makes a complaint against a member of the Stock Exchange to the Committee (who have complete disciplinary powers over members even to the point of expulsion), the Committee must in the first place consider whether the complaint is fitting for their adjudication; and if their decision is in the affirmative, they request the non-member to sign a form by which he is bound in law by the award of the arbitration.

FAILURES

A member who is unable to fulfil his engagements is publicly declared a defaulter, and his estate is administered by the Official Assignees annually appointed by the Committee, with much the same object in view as administration in bankruptcy. But although the administration of assets is binding on members in the sense that if they do not agree with it they may be expelled, it is not binding otherwise on members and non-members, who may sue for their debts independently of the administration. In so far as administration by the Stock Exchange seeks to override the common law it is not effective. For example, the Rules provide that all the assets of the defaulter shall be collected by the Official Assignee, and yet a claim which does not arise from a Stock Exchange transaction cannot be proved against a defaulter's estate; in other words, the *whole* of his assets are assigned for the benefit of a particular class of creditors only, namely, those whose debts arise out of Stock Exchange transactions. Such rules are not binding in the Courts. A non-member who is a creditor in respect of a Stock Exchange transaction is allowed to participate in a defaulter's estate provided his claim be admitted by the creditors, or in case of dispute by the Committee

In every case of failure the Official Assignees publicly fix the prices current in the market immediately before the declaration of the failure, at which prices all members having accounts open with the defaulter close their transactions by buying from or selling to him such securities as he may have contracted to take or deliver, the

differences arising from the defaulter's transactions being paid to or claimed from the Official Assignees. But a non-member is not bound by this rule, and may claim completion of the contract with the principal with whom his broker has dealt, if it is the broker who is in default. If the defaulter is the principal, the broker cannot complete, and the client is left to his remedies against the defaulter; but, as before stated, the broker usually holds himself responsible to his client for the due fulfilment of the bargain he has made for him. A broker who receives the proceeds of shares sold on behalf of his client is a trustee of such proceeds, and if he becomes bankrupt the client is entitled to them if they can be traced. A failure is an act of bankruptcy, as it involves the assignment of all the assets of the defaulter, and consequently any creditor can make the defaulter a bankrupt. The trustee in bankruptcy would be entitled to the assets collected by the Official Assignees, but not to the fund composed of *differences* which members have paid to the Official Assignees in respect of transactions of the defaulter which have been closed in the manner described above—*ex parte Grant* (1880). (See also Part III, Chapter XI.) Bankers and other persons lending money to the defaulter upon securities lodged with them are in a difficulty by reason that the failure is an act of bankruptcy. They cannot hand over the securities to the Official Assignees upon payment of the outstanding loan, because they have knowledge of an act of bankruptcy upon which a petition may be founded within three months. The only safe course to pursue is to permit themselves to be sued by the Official Assignees for the recovery of the securities. If the Official Assignees undertake not to part with the securities until the three months have expired, the Court will direct that the securities be handed over to them. The Court will order the plaintiffs, the Official Assignees, to pay the costs of the defendants—*Ponsford Baker & Co. v. Union of London & Smith's Bank* (1906).

MORTGAGE AND BLANK TRANSFER

Shares are constantly pledged with bankers and others as security for money advanced. A mortgage of this character does not differ in law from a mortgage of other property (see Part III, Chapter XII), although there are a few matters that need discussion here. A mortgagee is not allowed to make a profit on the pledged shares by selling the same and buying them back. If he does so the borrower is entitled to the profit—*Langton v. Waite* (1868).

A loan is often advanced upon the security of a transfer signed in blank by the borrower, who hands the same to the lender with the certificate of the shares pledged. By this means the lender has authority to sell the shares if the borrower makes default in payment, to complete the transfer by filling up the blanks with the name of the buyer, the consideration paid, the number of shares sold, and deliver the completed transfer with the certificate in exchange for the purchase price. On the other hand, if the borrower repays the loan, the transfer and certificate are returned to him. Although common, this is a dangerous method of giving security, and the Committee of the Stock Exchange will not, except under special circumstances, interfere in any question arising from the delivery of securities by transfer in blank. It lends itself easily to fraud; a person deposits a blank transfer and certificate for shares worth £1000 to secure a loan, say, for £100, the object being to save the expense necessitated by a complete transfer. The lender, if he is minded to commit a fraud, can complete the transfer and sell out the shares, and convert the £1000 to his own use without the knowledge of the borrower until it is too late. But if the fraudulent lender delivers the transfer in blank and certificate to a *bona fide* purchaser, the borrower can recover the shares on paying the sum borrowed, because the purchaser is deemed to have notice of the limited authority of the lender. A transfer by deed cannot be altered after signature unless the deed is re-delivered; consequently, if the blanks in a transfer deed are filled up after signature without authority, the deed is void.

If a client deposits securities with his broker in order to enable him to raise money thereon, the client bears the loss if the broker fraudulently sells and completely transfers the securities to a buyer who has no knowledge of the limited authority of the broker.

TRUSTEE INVESTMENTS

By the Trustee Act, 1893, section 1, trustees may invest in the following Stock Exchange securities:—

(*a*) Parliamentary Stock, Public Funds, or Government securities of the United Kingdom.

(*b*) Bank of England Stock, Bank of Ireland Stock.

(*c*) India 3½, 3, 2½ per cent Stock.

(*d*) Securities the interest of which is guaranteed by Parliament.

(*e*) Consolidated Stock of the Metropolitan Board of Works, London County Council, or the Metropolitan Police District.

(*f*) Debenture or Rent Charge, or Guaranteed or Preference Stock of any Railway Company in Great Britain or Ireland, incorporated by special Act of Parliament, and having during each of the last ten years past before the date of investment paid a dividend at the rate of not less than 3 per cent per annum on its ordinary stock.

(*g*) Stock of any Railway or Canal Company in Great Britain or Ireland whose undertaking is leased in perpetuity, or for not less than 200 years, at a fixed rent to any such Railway Company as is mentioned in the above clause, either alone or jointly with any other Railway Company.

(*h*) Debenture Stock of any Railway Company in India the interest on which is paid or guaranteed by the Secretary of State in Council in India.

(*i*) B annuities of the Eastern Bengal Railway, of the East Indian Railway, and of the Scinde, Punjaub, and Delhi Railway, and any like annuities which may be created on purchase of any other railway by the Secretary of State in Council in India, and charged on the revenues of India which may be authorized by Act of Parliament to be accepted by Trustees in lieu of any stock held by them in the purchased railway, and in deferred annuities Class D and annuities Class C of the East Indian Railway.

(*j*) Stock of any Railway Company in India upon which a fixed or minimum dividend in sterling is paid or guaranteed by the Secretary of State in Council in India.

(*k*) Debenture or Guaranteed or Preference Stock of any Company in Great Britain or Ireland established for the supply of water for profit, and incorporated by special Act of Parliament or by Royal Charter, and having during each of the ten years last past, before the date of investment, paid a dividend of not less than £5 per cent on its ordinary stock.

(*l*) Water Stock created under Metropolis Water Act, 1902.

(*m*) In nominal or inscribed stock issued or to be issued by the corporation of any municipal borough having, according to the returns of the last census prior to the date of investment, a population exceeding 50,000, or by any County Council under the authority of any Act of Parliament or Provisional order.

(*n*) In any of the stocks, funds, or securities for the time being authorized for the investment of cash under the control or subject to the Order of the Court.

(*o*) In Colonial stocks registered or inscribed in the United Kingdom in respect of which the provisions of the Colonial Stock Act, 1900, have been complied with.

A trustee may invest in any of the securities above-mentioned, notwithstanding that the same are redeemable and the price exceeds the redemption value, provided that a trustee may not, under the powers of the Act, purchase at a price exceeding its redemption value any stock referred to in clauses (*f*), (*h*), (*j*), (*k*) which is liable to be redeemed within fifteen years of the date of purchase at par or at some other fixed rate, or purchase any such stock referred to in the said clause which is liable to be redeemed at par or some other fixed rate at a price exceeding 15 per centum above par, or such other fixed rate.

AUTHORITIES.—*Bewes, W. A.*, "Stock Exchange Law and Practice".
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THE EXPORT OF CAPITAL

Its Effect on the Welfare of the Empire

BY

THE RIGHT HON. SIR EDGAR SPEYER, BART.

I desire to put forward some facts and considerations regarding the much-discussed question of Export of Capital, and to try and dispel some erroneous impressions which a superficial treatment of this important subject has created.

It is a melancholy fact—we must all be painfully aware of it—that our rushed lives allow us little leisure quietly to think out many questions for ourselves, and that by the nature of things we can only acquire a very superficial idea of current topics. Few questions have suffered more from this kind of flippant or careless treatment than that of the export of capital, and I therefore propose to consider with you what is the effect on the welfare of the empire of colonial and foreign investments; what is the substance; what is the shadow of this so called "flight of capital"; whether there is any ground for making a fine distinction between "capital attracted and capital driven abroad". In doing this, I do not claim to advance any new arguments or theories, but only facts taught and conclusions reached by experience and common sense.

One ghost, which haunts the imagination of many a good citizen, appears at many a feast and writes, like the unseen hand at Belshazzar's banquet, its Mene Tekel on the wall! "Capital is leaving the country. The country is doomed! Look at the handwriting on the wall!" And all the guests tremble.

A Common Fallacy Explained

There is no ghost. Turn on the light of logic and he is not there. It is a common fallacy to say that this country is exporting its old Capital, and that the large subscriptions to new issues do not represent new savings. If you think this matter out you will soon perceive that no country can invest old savings abroad. Of course Mr. Brown can sell Home Securities and invest the proceeds of the sale in colonial or foreign securities, but, in order to be enabled to do so, Mr. Smith must purchase Mr. Brown's Home Stocks. It follows from this very obvious transaction that Mr. Brown's investment abroad represents the new savings of Mr. Smith, who has bought the Home Securities from him. It may be argued that if Mr. Smith were not Mr. Smith but Herr Schmidt in Berlin that would alter the case. So it would. But nobody who knows anything about this subject would seriously maintain that British securities are held to any large extent outside Britain. Moreover, Herr Schmidt, in order to acquire British Stocks, would have to export his German Capital. It is quite impossible for any nation to invest old accumulations of Capital in other countries. The savings of a nation become fixed capital in the year in which the savings are made, and inasmuch as they are sunk in railway construction or in houses or plant or property of any kind which cannot be moved, they cannot be sent abroad. Of course a nation can sell securities abroad—Britain does not—and export them, as it were; but in that event, as was the case with Herr Schmidt, Capital is imported by the nation which sells the securities. The so-called "flight of Capital" is therefore nothing more that a "flight of imagination". There can be no doubt that the large investments of 1910 were from new accumu-

lations resulting from the rapid increase in the wealth of Britain. That a larger proportion of these savings has been invested abroad is due to economic necessity. In the ten years from 1894–1904 Britain raised an enormous sum for the Government, the municipalities, the railways, the construction of houses, &c. It spent a great deal of money on unproductive purposes; a very large sum was spent on the Boer War. It did not provide during that period Capital needed to increase the world's supplies of food and raw materials, as it had done in former years, and the consequence was that the supplies of these essentials in proportion to the increasing demand became relatively deficient. An unusually large investment of Capital was therefore needed in order to restore the balance.

Expansion and Contraction of British Trade

Expansion and contraction in British Trade are, to a great extent, brought about by the British people themselves. It depends on the amount of Capital they have and are willing to invest, and the direction in which they place it. Experience proves that the exports of British manufactured goods expand whenever foreign investments are made and contract when foreign investments cease. In a paper read at the Institute of Bankers in June, 1905, I ventured to urge the active resumption of foreign investments and increased thrift which had fallen into disuse in the preceding period of great extravagance.

Whatever the causes may have been, the fact is the country since 1904 has again entered upon the road of well-considered economy, and has invested largely in Colonial and foreign securities. In 1905 the exports of Capital were comparatively small, but in 1911 they are of unprecedented proportions. Consequently our Foreign Trade has grown by leaps and bounds, our commercial enterprises have greatly modernized their methods, and the general efficiency has been greater.

The result of this investment policy has been large exports of manufactured goods, and considerable expansion of imports of foodstuffs and raw materials needed for Britain's industries, while the import of foreign manufactures has been checked.

British Industries not Stinted

Lest I be misunderstood, let me state clearly that I do not advocate foreign investments in preference to and substitution of Home Investments. What I claim is that foreign investments assist home investments in those industries on which the welfare of the country primarily depends, and that it is untrue to say that Britain is stinting her own industries by sending Capital away. In Britain there is plenty of Capital for all sound Home enterprise, and if proof were needed as to the truth of this, it could at all times be seen in the fact that, in spite of bad times which are bound to come periodically, the credit of British industrial companies—a very good barometer—has always been, and still is, higher than that of any other country of the world.

Herr Dernburg and Foreign Investments

A very interesting debate recently took place in the German Reichstag on foreign investments. Herr Dernburg, the former Colonial Secretary, who is well qualified to speak, has published a little pamphlet in which he takes the Government severely to task for their anti-foreign-investments attitude. He also says with much truth that, while he strongly favours foreign investments, Home investments must not be forgotten. Public and private home industries and corporations have their claims, but you cannot say you will only lend money to foreign countries when the needs of the Home Market are satisfied. That is not a practical business proposition. There is no enterprising person whose borrowing propensities can be satisfied. He will take what he can get and use it—create a use for it somehow; and if he gets more than is good for him, indigestion ensues, the economic term for which is inflation; and we all know that inflation finally leads to financial suffering. Money can and should go abroad when the legitimate Home Credit requirements are satisfied at a reasonable rate of interest. This is the case in Britain. Experience shows that foreign loans, like Home investments, are made when money is easy and credit can be cheaply obtained. As soon as the rate of interest that rules at Home gets near the foreign yield, the inducement to invest abroad goes. The matter settles itself, and no laws, no Government interference, no speeches, no newspaper articles can change this.

Export of British Capital Chief Cause of Empire's Prosperity

It is obvious to all observers, and especially so to those engaged in the work of directing the flow of British capital into those channels of the world where it is needed, that the investment of a portion of Britain's annual savings in the Dominions

beyond the Seas, in India and the Crown Colonies and elsewhere, is one of the chief causes of the growing prosperity of the Empire. I will deal with the Imperial aspect a little later on. Let us first examine the problem from the Home Country's point of view.

Questions have often been put to me—"What good do these foreign investments do? How can the placing overseas of British Capital make for the prosperity of Britain? Would it not be better and more patriotic for British citizens to invest all their savings in their own country and build up her industries?"

To answer this question satisfactorily we must go back to first principles. It is an error to assume that the British people have no concern with the production of the vast quantity of things they are under the necessity of importing from abroad, and that they need only to build up their own industries in order to grow more rapidly in wealth and material comfort. A moment's reflection will make it clear that the industries of this country could not expand if the people's supplies of food and raw materials did not grow with the increasing requirements. They are interdependent.

Nature's Restriction on Britain

Let us consider the conditions under which the people of these islands have to make their income. Here is a population of 45,000,000 souls confined within the narrow cliffs of these small islands. The British Islands produce a supply of food only sufficient for a small fraction of their great population. How is it possible under these circumstances to maintain all these people in increasing comfort, and supply the world in general and the rest of the Empire in particular with the unprecedented amounts of capital Britain is supplying to them at the present time? Nature's restriction was Britain's opportunity; "Necessity", as Emerson says, "does everything well".

The British people have realized that their existence depends on supplementing the small quantity of wheat which can be advantageously grown in these islands from the wheat lands which extend round the world, and which can furnish them with bread for their sustenance; they realize that the animal food they require can be obtained from the limitless plains of the American and Australasian continents; that the wool they need for clothing can be grown in Australasia, South Africa, Argentina, but not on their Lilliputian downs; that the cotton which they need for the manufacture of their world-famous cotton cloth must be obtained from countries practically immune from frost and drought in the period of growth; that gold, silver, copper, tin, and other minerals needed by their industries must be obtained from countries where Nature has deposited them; and that the tea and coffee they drink, the tobacco they smoke, cannot be produced in their own country. In brief, an instinct of self-preservation told them that they must have these and many other things from the lands which could furnish them.

Encouraging Others to Produce

The British people then have not only to stimulate their own productions, but have of necessity to encourage other nations to produce those things they are naturally capable of producing in quantities sufficient not only for their own requirements, but for those of Britain as well. These were the motives which prompted her to be ceaseless in her efforts to assist other countries to increase their productions of food and raw materials. They practised what Bismarck would have called Commercial "Realpolitik", a policy which had the additional virtue of benefiting the world in general.

It is in that way and by opening wide her doors to the produce of the world, in order that her people might supply their needs from whatever quarter of the globe they could be supplied, that Britain has overcome those formidable difficulties. If, as Schopenhauer says, "to overcome difficulties is to experience the full delight of existence", then indeed Britain must have enjoyed herself in the past! In a little over sixty years she has increased her population by nearly 60 per cent, she has doubled her consuming power per head, and has quadrupled her wealth. These results have been obtained by bringing to life the dormant riches of the world. The British people practised what Burke had preached, that "it is the interest of the commercial world that wealth should be found everywhere". The factors which these undeveloped countries lacked to enable them to produce wealth in such abundance that the prosperity of the whole world would be enhanced, were labour and capital.

As has been well said, "the British investor in modern times is doing more than the emigrant, the traveller, the trader, to build up and secure the material, and, indirectly, the moral fabric of the world's civilization".

Britain has provided the shipping by means of which the new countries could be reached; she has built the railways by means of which labour could be brought to undeveloped lands, mineral deposits, forests, and placed these immense reservoirs of wealth at the service of mankind. The

amount of Capital supplied by Britain almost staggers imagination. In a paper read before the Royal Statistical Society, Mr. George Paish, to whom I am indebted for many of the data quoted, has shown that Britain has supplied £3,500,000,000 Capital to the rest of the world. We may well recall Ovid's line:—

> "*Facta canam: Sed erunt qui me finxisse loquantur.*"
>
> "I am about to sing of facts, but some will say I have invented them."

Think of it and ponder over this stupendous achievement, £3,500,000,000 of Capital to develop the good things which nature has stored up for the use and benefit of mankind! This is the kind of thing which Zola in *L'Argent* happily describes as "La poésie des résultats". And this figure does not include the huge sums invested in shipping, by means of which this produce is brought to our shores. In the year 1911 Britain received about £180,000,000 for interest upon the great Capital she has placed in other lands in past years. This income comes to her almost entirely in foodstuffs and raw materials, for it comes mainly from the Agricultural and Mineral Countries of the world.

How, then, we may well wonder, was it possible for a small country like Britain to provide all this Capital for the development of the natural wealth of the world?

Capital Investment Enhances Purchasing Power

The explanation is this. The more Capital we invest abroad in this way, the more Capital there is available for investment in our own productive industries. If we send Capital to another country, the purchasing power of that country is correspondingly increased. This purchasing power thereby given to the borrowing country is exercised by it in buying goods from the lands which can supply its needs. The greater demand for goods resulting from this enhanced purchasing power of the new country increases the demand for goods of all kinds, and either directly or indirectly brings about an increased demand for British goods. The greater demand for, and sale of, goods increases the income of our wage-earners and the profits of our traders, and the latter thus have the means of extending their works and plant. A great and continuous exchange is taking place, a constant play of cause and effect; such is the nature of Trade, "which, like the blood, should circularly flow". By lending Capital to other lands Britain manufactures the additional goods needed, both to pay for the securities for which our investors subscribe, and to extend our own works and plant. In fact, our loans of Capital to other lands cause the British people to increase their production of manufactured goods and to extend their industries in order to produce the wealth needed to make the loans. Thus the export of British Capital develops the natural wealth of the world, and especially that of the Daughter States of the Empire, and is the direct cause of the great expansion in the productive industries of Britain.

Why Not Invest Within the Empire?

Of the £3,500,000,000, about half has gone to the British Dominions beyond the Seas, and half to Foreign Countries. Some people may wonder why the investment of British Capital is not confined entirely to the Empire in order to cause the industries of the Empire to progress even faster than they now do. Everyone who has had anything to do with the investment of British Capital in the Colonies knows that the Mother Country has always been willing and prepared in times of peace to supply all the Capital that has been needed and could be profitably employed by the Colonies and by India; in fact, Britain has been willing and anxious to supply more Capital to the Colonies than they could profitably use, and at times serious trouble has arisen from the oversupply of Capital by Britain to the Daughter States.

Experience has shown that it is impossible for the British people to lend much more Capital to the Colonies than they can productively employ, as an excessive supply of Capital leads first to inflation and subsequently to financial disturbance, if not worse.

Happily, no such disturbing factors exist at present, and whatever part of the Dominions we contemplate, there is a universal tale of prosperity to record, largely in consequence of the unprecedented investment of British Capital at the present time, and its expenditure for reproductive purposes.

What British Capital Has Done

CANADA.—In Canada great railway systems are under construction, by means of which millions of acres of land hitherto unproductive will be rendered available for producing a large portion of the additional food needed to maintain the world's growing populations.

In 1910 Britain supplied the Canadian people with about £40,000,000 of new Capital, and in three years these islands have furnished £120,000,000.

This means £150 per head of the new population of Canada, and this money is almost entirely spent in providing the machinery of production, including railways. The result cannot but be an unlimited expansion of production and population.

AUSTRALIA.—In Australia mighty dams are in process of erection, by means of which the danger of drought will be eliminated over great areas of fertile land, and the more rapid progress of the Island Continent will be assured. At the same time new railways are being surveyed for the purpose of opening up fresh districts to settlement and binding the various States of the Commonwealth together by closer ties of communication.

The amount of Capital provided by the Mother Country is something like £500,000,000, which, with a population of about 5½ millions, is equal to about £90 per person, certainly a magnificent endowment for a young country.

SOUTH AFRICA.—In South Africa the ravages of the war are gradually disappearing, and the spirit of hope and enterprise now being displayed has caused the development of the agricultural and mineral wealth both of the Union and of Rhodesia to be actively resumed.

A total of £400,000,000 has been supplied, equal to £50 per head of population.

INDIA.—In India new railways and irrigation works are under construction which cannot fail to bring about a great increase in the productive power and wealth of the Indian people.

By linking East with West and North with South the Railways built by British Capital have profoundly modified old conditions, and the danger of starvation has been reduced, if not altogether eliminated. India has attained a degree of prosperity never before witnessed. In 1910 Britain supplied India with £15,000,000 new Capital, and in three years with £45,000,000. This brings the total amount (mainly for railway construction) to about £500,000,000.

CROWN COLONIES.—The minor States of the Empire are also advancing. The progress of invention and the increase of wealth have brought with them great demands for raw produce, and Ceylon, the Malay States, and the West African Colonies are preparing to supply these demands, which promise to be of a permanent character.

There are probably no spots on the world's surface which are enjoying a greater measure of prosperity than those of the countries I have named where rubber can be grown to advantage. The improved condition of these countries is directly due to the supply of British Capital, which has rendered increased production possible to meet the enormous demand which the motor car has caused. In 1910 £21,000,000 was provided for rubber plantations by the British people.

The Empire's Great Prosperity

Thus all the States of the Empire are not only enjoying great material prosperity at the moment, but the measures they are taking cannot fail to bring them a still greater accretion of wealth in years to come. I am not belittling the splendid work done by the inhabitants of the Daughter States when I say that this progress and prosperity is mainly due, as I have tried to show, to the spirit of enterprise of the Old Country and its readiness to assist and actively support the various parts of the Empire by furnishing an abundant supply of Capital. That has always been her first concern, and only after the Empire's needs were satisfied has she employed her savings in developing the natural wealth of foreign countries. But the British people have gone further than merely supplying all the Capital the Colonies and India can advantageously employ. They have supplied such Capital at lower rates of interest than they have been willing to grant to any foreign country.

Britain the Empire's Banker

No words of mine are needed to emphasize the immense advantage to the industries of the Empire of possessing a banker who not only lends all the money they need, but lends it at a lower rate of interest than that at which he is prepared to lend to competitors.

Mr. Paish states that the amount of publicly issued Capital supplied by Britain to the Colonies and India is not less than £1,554,000,000, and, including the Capital privately placed in these countries, the total investments of British Capital there reaches £1,800,000,000, while the terms we asked for such Capital are the envy of other borrowing countries; in fact, the income derived by Britain from Capital placed within the Empire is much smaller in proportion than the income she receives from Capital placed elsewhere.

Roughly speaking, there exist about £650,000,000 of Colonial and Indian Securities which Britain has made Trustee Investments. And beyond these Trustee Investments several hundred millions of pounds of British Capital have been supplied to the Governments, the Municipalities, and the Railways on very favourable terms.

Everyone acquainted with the easy terms upon which the Mother Country supplies Capital to the Daughter States and to India is aware that we have supplied the greater portion of this vast

sum of money on terms at least 1 per cent cheaper than we were prepared to lend it to countries outside the Empire. At a moderate estimate, the interest saving to the Colonies and to India is at least £10,000,000 per annum, a very handsome preference by the Mother Country. It means, in other words, that the ties of blood and kinship and British Imperial sentiment have enabled our Colonies to borrow an extra £250,000,000 of Capital (over and above the sum they could have borrowed) for the same annual payment to the Mother Country. Had they not been members of the Empire, things would have been vastly different! And the extent of this advantage is rapidly growing larger, in consequence of the great additional sums which Great Britain is now supplying them with annually.

It is evident, from what I have said, that the Mother Country is doing everything in her power to make the progress of her Daughter States as rapid and as durable as possible. I will only say that the proposal to tax foreign foodstuffs would not only sap and undermine the prosperity of Britain, but would be of no advantage to the Colonies. Duties on foreign foodstuffs would undoubtedly tend to restrict the area from which the food of the British people is drawn, a tendency which, having regard to the danger of crop failures in every country, could not be viewed otherwise than with alarm. Moreover, the ability of the Colonies to sell all the food they can raise is not in question. The perennial problem to be solved is not how to find markets for the food and raw materials produced, but how to produce enough of food and material for the increasing number of mouths to be fed and backs to be clothed. There can be no doubt about the expansion in the prosperity of the Colonies. The one great danger that has to be guarded against is an insufficient supply of food in proportion to the world's growing population. The very existence of Britain, with her great population and small area, depends upon her ability to secure regularly, year by year and day by day, the great quantity of food and raw materials which she needs for the maintenance of her people, and it is of supreme importance to her to stimulate and assist the whole world to produce, in order that out of the world's surplus she may get sufficient for her people. The greater the world's surplus, the more secure is the prosperity of the British Empire.

Summing up

We find, then, that the investment of British Capital, wherever it is needed, brings advantage to everyone, to the British people, to the Daughter States and Dependencies of the Empire, and to the whole of mankind, who are thus assisted in obtaining the good things that Nature has placed within their reach.

I think I have shown what Capital has done for this country by developing the resources of the world. But it does more. It can and does help to promote peace, actively and effectively.

Britain, by her pluck and enterprise all over the world, and by what amounts to almost an unfailing instinct, has placed her money where it has done most good. She has never placed it where it might have hurt her country's interests. In fact, Trade generally precedes, and in a large measure directs, the world's policy to-day. Modern Diplomacy takes its inspiration from Trade and executes the economic will. That is, I venture to think, one of the characteristic features of our time.

As a rule, we are free here to conduct our business without Government interference, such as the Governments of France and Germany see fit to exercise. The civilizing influences, direct and indirect, of this process of foreign investment are obvious and of the first importance. On the part of young or backward countries requiring the aid of foreign capital, it has tended, more than any other cause, to promote internal security and good government, for high rates of interest, or, worse still, the refusal of capital, is a crushing penalty to pay for disorder and dishonesty. This growing ownership of property by the citizens of one nation in the country of another is the most substantial contribution not only to the peace, but to the active goodwill of nations. How shallow is the notion that the cause of protection and national isolation represents the dominant tendency in history to-day! If there were no other direct trading interests promoting the international exchange, this demand of the young and growing countries for capital would force trade across the barriers set up by shortsighted politicians or interested traders. I attribute Britain's commanding position mainly, if not entirely, to her broad and open-minded policy.

Though the people of Britain have been more adventurous than any, every other industrial nation is following in her wake. Competition is keen and is growing. Germany and the United States—to mention only two nations—are well equipped and daring. Britain must look to her oars to keep in the race! "The price of *Commerce* is eternal vigilance," as the *Times* well expressed it a short time ago.

This country has been prosperous so long, and has gained such an immense lead and advantage over all other nations, that she is apt to look back

on past achievements unmindful of the future. "Prosperity destroys fools and endangers the wise."

National Effort Necessary to Hold our Own

Lord Furness has warned us that "unless we apply ourselves assiduously and nationally to develop our commercial methods to the highest possible plane, we cannot hope to hold our own," a warning which is re-echoed in almost every Consular Report, and one which should be taken seriously to heart. (See Vol. III, p. 72, of this Book.) For the business men and traders of to-day have to be more fully equipped in every respect than their predecessors. New conditions require new methods, and it is so much easier to do what one has done before than to do a new thing! The commerce of to-day demands a most highly trained army of workers. The real wealth of a country is the qualities and faculties of its people. National wealth is only the product of labour and skill.

What is wanted is fitness and the bringing up of a generation not only with sound bodies and good muscles, but also with alert minds and adroit hands. But, as I have said, there are welcome signs that these defects are going to be dealt with.

In conclusion, the facts I have put forward seem to me to warrant our looking to the future with confidence and cheerfulness. The awakening of Britain and the progress of the Empire in the last half-dozen years fill one with hope for the years to come. There has been a veritable industrial revolution in this country, and the spirit of enterprise with which the British people are now filled, assisted by the great schemes of social reform planned by the Government, cannot fail to bring them an increasing measure of prosperity as the years pass.

What applies to Britain applies in even a greater measure to the Empire. There have been times when a certain element of faintheartedness and doubt as to the future has manifested itself, and when certain people, mistaking a temporary set-back for an alarming symptom of some permanent defect in the economic machinery of the British Empire, have imagined that a change in the fiscal policy of the Mother Country was imperative.

I cannot help thinking that the developments of the last few years, and the experience and evolution of the last half-century, are a triumphant and convincing vindication of the broad and open-minded policy of absolute freedom pursued by the old country.

It is in the nature of things that especially young countries will have their ups and downs from time to time, but for all that no one can doubt that the influx of Capital and of population they are now experiencing, coupled with the world's expanding demand for food and raw materials for their constantly increasing people, will mean rapid and increasing progress in the coming years, and we may claim, without exaggeration that the British Empire has never been as wealthy and progressive as it is to-day, and the signs are auspicious that the present cycle of prosperity has not spent itself yet.

Let us all do our share, so that what Defoe said in 1730 of Britain, and what is equally true to-day of the Empire, may always be true: "Its commerce is an immense and almost incredible thing".

PART V

TRANSPORT BY SEA AND LAND

INTRODUCTION

The object of this Part is to give general information as to the various means of transport, and to discuss questions connected with the carriage of goods and passengers and the handling of goods at the ports of discharge and delivery. Many practical problems of vital importance in many, and of some importance in all, businesses present themselves here, as well as the general law of carriage and the particular law of railways.

The first chapter is a comprehensive one treating of Through Routes for the World's Trade, dealing categorically with the ports of the United Kingdom and the World, showing the great trade routes, inland and by sea, the shipping services at each port, and giving particulars of the various lines.

Carriage by Road, its origin and present-day usefulness and revived importance, forms the subject of a separate chapter, with particulars of the methods of collection, carriage, and distribution of goods so handled.

The more important subject of *Railway Carriage* is spread over two or three chapters, in which railways in their various aspects are treated. Railways and their Promotion and Ownership; Finance and the question of State purchase; Competition and Combination, in relation to the public; Charges and Facilities to Traders; Agricultural Co-operation; high capacity Engines and Wagons; Accounts and Administration; the Clearing House; Employment and its Difficulties; Electrification; Light Railways; are the principal points of one chapter. Another chapter deals with Railways more from the point of view of the trader, and contains many practical hints from an expert as to how to use the railway, how to save money in rates, and how to claim compensation for damages or delay.

In accordance with the scheme of this work the Law of Carriage, although of necessity incidentally touched upon in other chapters, is dealt with more fully, though practically and with necessary brevity, in a special chapter. Here the private carrier and the much more important "Common Carrier" are generally discussed, but the special conditions of Railway Carriage call for more attention. A Bill to amend the Railway and Canal Traffic Acts and the law with respect to owners' risk rates and companies'

risk rates, and other matters, including the increase of charges on account of the extra cost of labour due to the improved conditions of the railway staff, was presented by the Government to Parliament in 1912. Into the particular question of the contract of sea carriage it is not necessary to enter here, that finding its appropriate place in Part VI.

Railways are and always must be the subject of criticism from the public, from traders, passengers and other ordinary users, and from those who on general grounds regard a monopoly in private hands with suspicion. Hence the idea of Railway Nationalization is always in the air; but while there might be advantages in working and control, and in many respects savings in running and administration, it cannot be denied that the progress of railways depends upon individual effort and invention, upon special industry, upon competition, even now not too keen, and upon an alertness not always associated with Government direction.

It is perhaps owing to the fact that railway agreements and pooling arrangements have so limited competition that complaints are sometimes heard that railway companies are reluctant to quote rates or entertain business out of their common course and settled practice. Still, outside pressure, the competition with vessels conveying goods round the coast from port to port, the keenly felt rivalry of trams and buses in respect of urban and suburban passenger traffic, have been most stimulating. These and other factors have led to the adoption of speedier and more convenient goods services, the running of motor buses as feeders for the railway, and the extensive electrification of short stretches of passenger line. With all the advantages of door-to-door delivery by road of a certain class of goods—the possibilities of which were more clearly demonstrated during the railway strike—it is certain that the heavy traffic, and most important of all the mineral traffic, and the long distance goods and passenger traffic, must remain with the railways.

It is always worth recalling how much certain towns and industries owe to railway companies. As owners of Docks, railway companies have spent millions of pounds, as, for example, the London and South-Western Railway Company's expenditure of £5,000,000 on Southampton, or the new Immingham Dock of the Great Central Railway Company. Round the establishment of locomotive and carriage works towns have rapidly grown up or been vastly developed, so that a large special class and whole districts are interested parties in any proposals with regard to the control of the railways.

Canal Carriage, a much-debated and not as yet very fruitful topic, has been treated in another chapter in its British and Continental aspects. Comparisons between these are shown to be of little service. The by no means unanimous Report of the Royal Commission has not yet been acted upon, for reasons not difficult to understand, though its adoption, or at any rate the establishment of a Waterways Board, with a view to State control, is urged by certain sections of traders. The question is, however, a financial one, and it has not yet been shown that action would be justified on business grounds. While the purchase and control by the State of canals

might be of special advantage to certain localities, the indirect benefit to the public at large would not appear to justify the burden.

A practical chapter on *Docks, Wharves, and Warehouses* has been largely contributed by an experienced official at the London Docks. Here again the labour question is the most acute problem, beside which the extension by enormous expenditure of the Docks at London, Liverpool, and elsewhere, and the opening of the new King's Dock at Immingham, in normal conditions of first-class interest to the country, are of subordinate concern. *Inland Warehouses* are dealt with by another expert, and the special law of Warehousing and Storage is briefly stated.

While the transport system has become world-wide, the machinery running with an efficiency and celerity undreamed of in years quite near to us, there has not yet been evolved an organization between employers and workmen which can withstand dislocation from the most trivial cause. In a few hours, therefore, the transport conditions of the country may be thrown out of gear, and if the differences are not adjusted the greatest carrying trade of the world may be in jeopardy.

If the achievements in ocean carriage have been unparalleled both in size and equipment of vessels, and in the speed and comfort attained on the voyage, so too has been the tragic miscarriage which, by its overwhelming example, taught the lesson once again that the triumphs of engineering must still rely for their safe-conduct upon the foresight, prudence, and skill of the men in control, and with every care on their part remain subject to the inevitable or the unlooked-for occurrences in nature.

The rapid and accurate spread of intelligence across the seas, the communication between ships at sea with each other and with land, made possible through wireless telegraphy, remove the chance of danger and mitigate the effects of particular misfortune, and greatly add to profitable knowledge for future guidance. This ground of satisfaction, with pride in that display of heroism which is in keeping with the best traditions of our naval history, has always been associated with the feelings of grief and loss produced by such a disaster.

The absorption of transport undertakings by groups of companies, with common boards of management, and the control of traffic agencies by combinations, often referred to inimically as "trusts", have not yet in Britain been so devoid of practical advantage to the public as to be objects of real suspicion. They have undoubtedly aided much in the furtherance of through routes and rates both for passenger and other traffic. Such a development, however, requires careful watching in the public interest.

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CHAPTER I

THROUGH ROUTES FOR THE WORLD'S TRADE

Introductory—Ports of the United Kingdom—The Great Trade Routes—Canadian Ports—Australian and New Zealand Ports—United States Ports—Central American and West Indian Ports—South American Ports—African Ports—Indian Ports—Straits, China, and Japan Ports.

INTRODUCTORY

Modern commercial conditions, with competition becoming every year more keen, make the subject of rapid and economical distribution of merchandise one of vital importance to the manufacturer and trader. In no country is this factor more important than in Britain, which depends upon its export and import trade for its commercial wellbeing. Its pre-eminent position is largely due to the superiority of its facilities for quick and regular transport. The aim of this chapter is to give practical information relating to steamship routes to all parts of the world, covering both passenger and freight services, as a daily reference for all either sending goods or travelling to any quarter of the globe. Particulars are also given of the land facilities for transport by rail, road, and water in connection with these ocean routes, showing how the manufacturer and shipper may best secure the most efficient and rapid means of transport for his produce. For this purpose the information is divided up under two headings, the first giving a list of British ports, showing the railway connections between each port and the district covered, and under each port particulars of the various steamship companies making it their headquarters or using it as a port of call; the second showing the world in different groups, and under each heading the important lines maintaining services to every part. Not only British ports, but also the principal companies whose headquarters are on the Continent and who either make one of the British ports a port of call before proceeding on their voyage or whose port of origin is quickly and easily reached by railway and steamship connections from this country, are dealt with.

The trader will see that in many cases he has a variety of lines to choose from, and will be able to find out particulars of the services carried out by each steamship company.

Highways of Commerce

Transport by sea had reached an important position long before developments in inland carriage were of more than a rudimentary character. For centuries past this country has been renowned for its enterprise and skill in the navigation of vessels, and has won a place of superlative importance as the "Mistress of the Sea". We will only instance the East-Indiamen which in former days carried British merchandise to foreign lands, bringing back produce to this country, thus establishing that most valuable trade which was undoubtedly the forerunner of the vast commerce of to-day. It is therefore not surprising that the title of "The Highway of Commerce" should have been applied to the routes of the great steamship companies. But it is less than a hundred years since steam power became a practical factor in transport either by sea or land; and while the fast clippers which carried goods to and from this country were marvels of skill in their day, the regularity and almost time-table character of the transport services of the present day constitute a state of things undreamed of not so many years ago.

There is no finality, however, in the development of transport facilities, and the supremacy of steam as a propelling power is seriously threatened by oil and the internal-combustion engine. Vessels of considerable tonnage have been built to use oil as fuel, and the great economy of space is an advantage which ensures a thorough trial of its merits. On land the same development is seen, and railway engines have been adapted to use oil

fuel in place of coal. The number of petrol motor vehicles on the road is increasing every day. The scope of the operations of oil as a motive force is practically unlimited.

The merchandise of the United Kingdom is carried in British vessels to every part of the world, and new fields for commerce are being constantly opened up and new markets created by means of the increased facilities offered through the enterprise of the master minds who control the great steamship companies. Hardly a week passes without news of some fresh development in the shipping world, or some combination of steamship companies which shall strengthen and increase the transport facilities already in existence. Then, again, in shipbuilding, the last word of to-day in gigantic and luxurious vessels may be eclipsed by the still more enormous vessels of tomorrow. The famous Cunarders, the *Lusitania* and the *Mauretania*, held the place of honour for a time; but the advent of the *Olympic* and the *Titanic* of the White Star Line transferred the interest to these still greater vessels, which, with their gross tonnage of 45,000 tons, put in the shade the Cunarders of 32,000 tons only, while the Hamburg-American Line quickly followed with the *Imperator*, a vessel of 50,000 tons.

Inland Transport

Turning for a moment from the subject of sea transport to that of land, it is difficult to believe that it was in 1825 that the first railway was run by steam power, when the Stockton and Darlington Railway was built by George Stephenson, and trains were run upon rails and drawn by the celebrated "Rocket". Before that time inland transport was almost entirely confined to local centres or to big towns conveniently situated near the ports or alongside the canals which, up to the advent of the railways, held undisputed sway as the means of transport for heavy merchandise. Prior to the canal era, transport had been mainly by means of pack horses, and the traditions of Pickfords, Ltd., the well-known carriers, go back to the days when the company carried goods by this method over roads which could not be called roads in any real sense, but were merely bridle-paths from one part of the country to another. (See also Chapter IV of this Part.) This elementary form of transport was replaced, as better roads were made, by the carrier's van and the coaches, a trade which was badly hit when canals became the vogue, and finally almost disappeared after a strenuous fight against the more speedy means of transport by railroad. It is interesting to note that a number of old booking-offices which in former days carried on a prosperous business as the starting-points for the regular coach routes are still in existence, and to-day do good and useful business as auxiliaries to the various railway companies, in some cases still retaining their old names, made famous by Charles Dickens in his works. Amongst these are La Belle Sauvage, Ludgate Hill; the Spread Eagle, Leadenhall Street; the Swan with Two Necks, Gresham Street; the Bolt and Tun, Fleet Street; the George and Blue Boar, Holborn; and Griffin's Green Man and Still, Oxford Street.

A point to be noticed is that increased facilities for transport always create increased trade, just as increased trade demands increased facilities for distribution, the two reacting one upon the other. Thus at the time of the coaching days comparatively few people found it necessary to travel, and the necessaries of life were supplied from the local centre without much difficulty. As travelling facilities increased, the demand grew for a larger variety of articles of merchandise, and travelling became a matter of everyday occurrence rather than an event to be looked forward to with a certain amount of fear and trembling. The advent of canals caused an awakening of commercial enterprise which in its day must have appeared stupendous in its rapid growth.

Transport by Canal

The initial impetus was the decision of the Duke of Bridgwater to build a canal connecting the coal mines on his Worsley estate with an outlet at Runcorn, this being forced upon him by the fact that hitherto the cost of carriage had been so prohibitive as to prevent the profitable working of these mines. He secured the services of James Brindley, at that time an unknown working engineer, and after a tremendous fight against powerful interests the Act authorizing the enterprise was passed and the canal was made. As soon as it was seen that this form of transport was more rapid and economical than any before in existence, Bills were brought before Parliament to authorize the making of canals in all parts of England, until the whole country was covered with a network of inland waterways. The result was a tremendous leap forward in the commercial development of the country, and a trade which in course of time outgrew the transport facilities which had been the cause of its growth; and just as the canals superseded the coaches and the pack horses, so the inventions of Stephenson, Watt, and Trevethick, resulting in the introduction of steam engines, quickly superseded the canals. At the present day this once-prosperous means of transport is now only carried out successfully in a small

number of cases where cheap transport is of more importance than speed, and where the factories and works are situated on the banks of or near to the canal and the expense of haulage is avoided. The fact that a very large proportion of the English waterways are owned and worked by the railway companies naturally suggests that these are not in any sense active competitors of the new and quicker system of inland transport. (See also Chapter III of this Part.)

Railway Transport

Great as had been the commercial developments brought about by the opening up of canals and inland waterways in all parts of the country, it was as nothing to the impetus to trade resulting from the introduction of railways which connected not only different and widely separated parts of the country, but also linked up important industrial centres with the ports and the steamship services, and thus threw open the whole world to the enterprising trader. Cases which have been fought out in the Courts have proved conclusively how one town or district has gained or suffered at the expense of a rival which has been better served.

Starting as railroad owners charging tolls to traders for the use of their roads, the railway companies quickly found it necessary to become carriers themselves, and their equipment for handling traffic is now of the completest character, including not only the railway services proper, but also the collection and delivery of goods by their own vans and by means of their own booking offices, and the rendering of the various terminal services necessary to complete the transaction from door to door.

Then, again, working arrangements and virtual amalgamations have been brought to such a point that unnecessary and expensive competition is avoided, to the profit of the railway companies and also of the public, by means of increased facilities. The ramifications of our railway system are so involved and so intricate that it is difficult to tell where one sphere of influence begins and another ends.

In a country like Britain, surrounded by water, the railways, important in themselves, hold an even more important position as feeders to the ports and the lines of steamers radiating therefrom to every part of the world, carrying manufactured goods to other lands and bringing back the food and raw materials and other manufactured goods upon which we are dependent for our welfare, and the subject of the railway companies as dock and port owners is a large one. Our great railways are controlled by men who have seen the necessity for connecting up their systems with wider fields of commerce, and with great enterprise they have in many instances secured a prominent position as dock proprietors. In this connection the London and South Western Railway and the Southampton Docks; the London and North Western Railway and their docks at Fleetwood and Garston; the North Eastern Railway and the Hull and Barnsley Railway at Hull; and the North Eastern Railway at Tynemouth, Middlesborough, and the Hartlepools; the Great Western Railway and Fishguard; are only a few of the leading instances.

Through Rates

Just as modern developments have created a demand for through routes from this country to every part of the world, so in the same way the necessity has arisen for through rates; and in addition to the facilities offered by the railway companies and steamship lines, there is an important section of the carrying trade known as Forwarding and Shipping Agents, who are experts in all matters relating to the forwarding and shipping of goods, the payment of charges, customs dues, and tariffs from the producer direct to the consumer in the British dominions, colonies, and foreign lands.

The forwarding business has developed to such an extent that the merchant and shipper can sit in his office and obtain at short notice full information of through routes and rates for his goods from his factory to the market in any country or any place in the world. These forwarding agents and foreign carriers, having agents in every important centre, compile tariffs of rates and supply information in all matters relating to tariffs, customs, cartage, railway rates, and steamship charges.

Motor Traction

What effect the growing industry of motor traction will have on the larger transport question it is yet too early to say, although its influence upon inland carriage is already very considerable, and is making itself increasingly felt. Goods of all kinds are taken by road, without any handling, from house to house in preference to being sent by rail, and travellers think nothing of long journeys by motor car where a short time back the railway was the only means of conveyance.

Haulage by motor vehicles is yet in its infancy, but the railway companies are themselves using motor vehicles to connect remote places in their systems, between which it would not pay to run a railway service.

We return to the great services of the steamship companies and their connections throughout the world. Brief mention must be made of the ports, but only because they are the terminals for the steamship lines mentioned, and in no way with a view to giving information about the facilities at the docks or ports. (See also Part II, Chapters V, VI, and VII.)

PORTS OF THE UNITED KINGDOM

Aberdeen

The northernmost port of any importance in Britain, Aberdeen is the headquarters of several coastwise services from Scotland to ports in England. It is the terminus of the Great North of Scotland Railway, which covers the district round, connecting the port also with the Highland Railway, to all parts of the Highlands; the North British and the Caledonian Railway, by which it is in direct communication with every part of Scotland, and via Carlisle or Berwick with the following ports of England and Wales: London, Liverpool, Bristol, Cardiff, Hull, Newcastle, and Southampton.

Coastwise Services:—

LEITH and INVERNESS and intermediate ports—The Aberdeen, Leith, and Moray Firth Steam Shipping Company, Ltd., Aberdeen.

HULL and NEWCASTLE—Aberdeen, Newcastle, and Hull Steam Company, Ltd., Aberdeen.

LONDON—Aberdeen Steam Navigation Company, Aberdeen.

CAITHNESS, ORKNEY, SHETLAND, and to LEITH—The North of Scotland and Orkney and Shetland Steam Navigation Company, Aberdeen.

Aberdeen is also a port of call for the Langlands Line. (See "Liverpool".)

Foreign Services.—There is also a direct service between Aberdeen and Hamburg, and between Aberdeen and Rotterdam, steamers sailing every ten days from Aberdeen, the agents in Aberdeen being Messrs. R. Connon, Reid & Co.

Messrs. John Cook & Son, of Aberdeen, also own vessels which trade at irregular intervals between Aberdeen and Norway.

Barrow-in-Furness

Large steamers run daily between Barrow and Belfast, and during the summer months between Barrow and Douglas (Isle of Man). There are also services between Barrow and Fleetwood, Heysham, Southport, and Liverpool.

The Furness Railway Company, which serves the port, owns steamers maintaining regular services to Fleetwood.

Belfast

The port of Belfast is the most important in Ireland, and it is here that some of the largest vessels of our mercantile marine are built, at the shipbuilding yard of Messrs. Harland & Wolff. The port is served by the Midland, Belfast and County Down, and Great Northern (Ireland) Railways, which connect it with every part of the island. By the steamship services between Belfast and Heysham, and Larne and Stranraer, it is also in direct communication with the rail way systems of England and Scotland.

Coastwise Services:—

DUNDEE, LEITH, WEST HARTLEPOOL, TEES PORTS, and NEWCASTLE-ON-TYNE—Antrim Line, Belfast.

LIVERPOOL and LONDONDERRY (daily)—Belfast Steamship Company, Ltd., Donegall Quay, Belfast.

The steamers of the Midland Railway sail daily between Belfast and Heysham, and the vessels of the Lancashire and Yorkshire and London and North Western Railway Steamship Service maintain the royal mail route between Fleetwood and Belfast.

A third route is that between Larne and Stranraer by the steamers of the Larne and Stranraer Steamship Joint Committee.

Belfast is also a port of call for—

Glasgow, Belfast, and Bristol Channel Service (W. Sloan & Co.). (See "Glasgow".)

Isle of Man Steam Packet Company, Ltd. (See "Douglas, Isle of Man".)

City of Dublin Steam Packet Company. (See "Dublin".)

Clyde Shipping Company, Ltd. (See "Glasgow".)

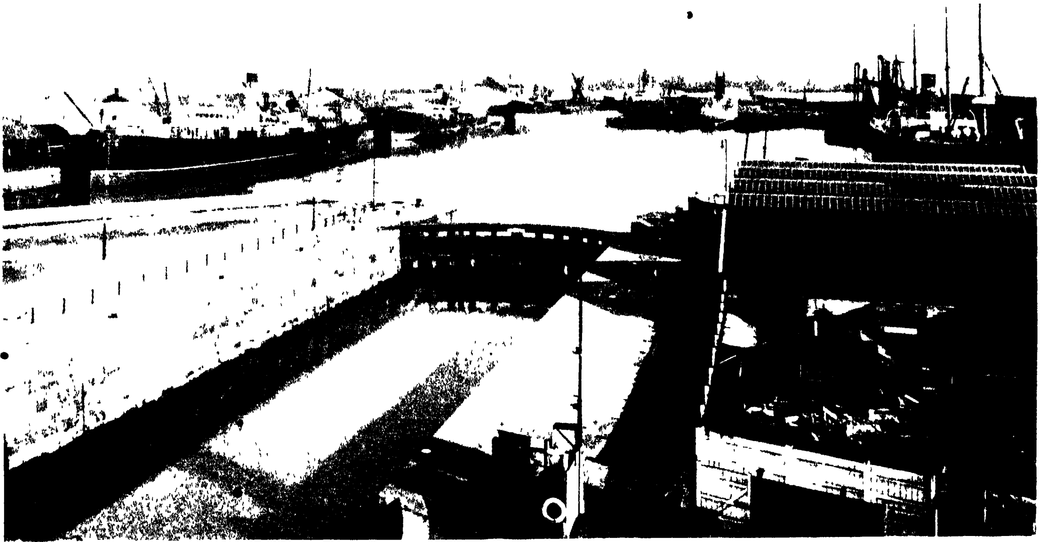
Laird Line, Ltd. (See "Glasgow".)

Scotch and Irish Royal Mail Line (G. & J. Burns, Ltd.). (See "Glasgow".)

Foreign Services.—The steamers of the Canadian Pacific "Empress" Line, the Ulster Steamship Company, Ltd., the Irish Shipowners' Company Ltd., the "Head" and "Lord" Lines, keep the port in touch with North American ports and the Baltic.

Bristol

Although claiming to be the oldest seaport in Great Britain, Bristol does not rely on its ancient prestige and traditions. It has made rapid strides in its development, and offers facilities for dealing



THE AVONMOUTH DOCKS, BRISTOL



THE ROYAL EDWARD DOCK, BRISTOL

with shipping which have restored it to a leading place amongst the great ports of this country. It is connected with London by the Great Western Railway, which runs express services to and from the docks, and the Midland Railway also links it up with the midland industrial centres.

Coastwise Services:—

CORK and DUBLIN—Bristol Steam Navigation Company, Ltd., Bristol.

CARDIFF, CLEVEDON, WESTON, NEWPORT, MINEHEAD, LYNMOUTH, ILFRACOMBE, CLOVELLY, CHEPSTOW, MUMBLES, TENBY, &c.—P. & A. Campbell's Steamers, Bristol.

Continental Services:—

ANTWERP, AMSTERDAM, and ROTTERDAM—Bristol Steam Navigation Company, Ltd., Bristol.

Canadian Services:—

QUEBEC and MONTREAL—Royal Line (Canadian Northern Steamships, Ltd.), London.

West Indies and Central America Services:—

KINGSTON, JAMAICA, and SANTA MARTA (Colombia)—Elders & Fyffes, Ltd., Bristol.

Bristol is also a port of call for the—

Bacon Line. (See "Liverpool".)

City of Cork Steam Packet Company, Ltd. (See "Cork".)

Federal-Houlder-Shire Lines. (See "Liverpool".)

Glasgow, Belfast, and Bristol Channel Service (W. Sloan & Co.). (See "Glasgow".)

Holland Steamship Company or British Amsterdam Maritime Agency, Ltd. (See "London".)

Langlands Line. (See "Liverpool".)

Little Western Steamship Company (G. Bazeley & Sons). (See "Penzance".)

Powell & Hough Line. (See "Liverpool".)

Waterford Steamship Company, Ltd. (See "Waterford".)

White Star-Dominion. (See "Liverpool".)

Cork

Cork is in direct communication with London by means of the express service of the Great Western Railway, via Fishguard and Rosslare. It is also served by the Great Southern and Western Railway, connecting it with the whole of the southern portion of the island.

Coastwise Services:—

FISHGUARD, LIVERPOOL, BRISTOL, PLYMOUTH, SOUTHAMPTON, LONDON—City of Cork Steam Packet Company, Ltd., Penrose Quay, Cork.

It is also a port of call for the Bristol Steam Navigation Company, Ltd. (See "Bristol".)

Douglas (Isle of Man)

Douglas is the headquarters of the Isle of Man Steam Packet Company, Ltd., which runs steamers for holiday-makers from Liverpool and Fleetwood. There are also services to Dublin, Belfast, Glasgow, Llandudno, Warrenpoint, and Blackpool.

Dover

Dover is best known in connection with the Continental traffic of the South Eastern and Chatham Railway, the shortest route to the Continent being from Dover to Calais, a distance of only twenty-two miles. Steamers also run three times a day between Dover and Ostend. Dover has been developed as a port of call for ocean lines—the Red Star Line, the Woermann Line, and the Royal Holland Lloyd, all call here en route.

Continental Services:—

CALAIS (daily)—South Eastern and Chatham Railway, London.

OSTEND — Belgian State Railway and Mail Packet Service, London and Dover.

African Services:—

WEST AFRICAN Ports, starting from HAMBURG, and calling at BOULOGNE, LAS PALMAS, TENERIFFE, CONAKRY, MONROVIA, GRAND BASSAM, SEKONDI, and the CAMEROONS—Woermann Line, Hamburg, or Smith, Sundius, & Co., Dover.

South American Services:—

RIO DE JANEIRO, SANTOS, BUENOS AYRES. Starting from AMSTERDAM, and calling at BOULOGNE, CORUNNA, VIGO, LISBON—Royal Holland Lloyd, Amsterdam, or H. V. Elkins, 60 Haymarket, London.

United States Services:—

NEW YORK, starting from ANTWERP—Red Star Line, London, or Geo. Hammond & Co., Dover.

It is also a port of call for the Clyde Shipping Company, Ltd. (See "Glasgow".)

Dublin

Dublin is in direct communication with the London and North Western Railway and the Midland Railway by means of the cross-channel services in connection with these two lines, the boats of the Midland Railway running direct between Heysham and Dublin, while the boats of the London and North Western Railway run between Holyhead and Dublin, connecting with the express services to London and all parts. Dublin is served by the Great Northern Railway of Ireland, the Midland Great Western Railway of Ireland, and the Dublin and South Eastern Railway.

Coastwise Services:—

FALMOUTH, PLYMOUTH, SOUTHAMPTON, PORTSMOUTH, LONDON—British and Irish Steam Packet Company, Ltd., Dublin.

HOLYHEAD and LIVERPOOL (daily); also BELFAST—City of Dublin Steam Packet Company, Ltd.

MANCHESTER via Manchester Ship Canal—Dublin and Manchester Steamship Company, Dublin.

SILLOTH and DOUGLAS (Isle of Man)—W. Sloan & Co., Glasgow.

Dublin is also a port of call for—

The Tedcastle Line. (See "Liverpool".)

Isle of Man Steam Packet Company, Ltd. (See "Douglas, Isle of Man".)

Bristol Steam Navigation Company, Ltd. (See "Bristol".)

Dundee

Dundee, the third city of Scotland, is served by the Caledonian and North British Railways. Coastwise services are maintained to Newcastle and to London for passengers and goods, and there is also a cargo service to Hull.

Coastwise Services:—

NEWCASTLE—Dundee and Newcastle Steam Shipping Company, Ltd., Dundee.

LONDON and to HULL (cargo only)—Dundee, Perth, and London Shipping Company, Dundee.

Fishguard

Fishguard is the terminal on the English side of the Great Western Railway route to Ireland, and the boats of the company run from this port to Rosslare as part of the service to Waterford and Cork. The development has been the means of opening up the South of Ireland by giving travellers a short route to Killarney. It has also become an important factor in saving time in bringing passengers and mails to London. It is a port of call on the homeward journey for ocean liners from America and also from Spanish ports, both the Cunard and Booth liners calling regularly to land passengers and mails. The steamers of the Blue Funnel Line from Glasgow make Fishguard the port for embarking passengers on the outward journey. The Great Western Railway run special express trains to Paddington in connection with the ocean liners in less than five hours. At Cardiff, connection is made with the West, South, Midlands, and North of England.

Coastwise Services:—

ROSSLARE (twice daily), and to WATERFORD (daily)—Great Western Railway.

Fishguard is a port of call for the—

Blue Funnel Line. (See "Glasgow".)

Booth Line. (See "Liverpool".)

Cunard Line. (See "Liverpool".)

City of Cork Steam Packet Company, Ltd. (See "Cork".)

Fleetwood

Fleetwood is principally of importance as the port of departure of the steamers of the royal mail route to the North of Ireland, connecting with Belfast. It is served by the Lancashire and Yorkshire Railway in conjunction with the London and North Western Railway, and the two companies run steamship services jointly to Belfast every day (Sundays excepted), and to Londonderry twice weekly.

Fleetwood is also a port of call for the steamers of the—

Blackpool Passenger Steamboat Company, Ltd. (See "Blackpool".)

Furness Railway Company. (See "Barrow-in-Furness".)

Isle of Man Steam Packet Company, Ltd. (See "Douglas, I.O.M."); while during the Jersey potato season a boat leaves every week, having passenger accommodation.

Folkestone

Folkestone is known as a high-class watering place on the South Coast, and as the port of departure for the South Eastern and Chatham Railway steamers, not only by the old-established route to Boulogne and thence to Paris and all parts of the Continent, but also for the night service to Flushing, making this the quickest route to Germany and beyond. The vessels employed on this service are the largest cross-channel steamers, and are owned by the Zeeland Steamship Company.

Glasgow

Every class of shipping is represented on the Clyde, from the river steamers, of which there is an abundant and first-class supply, to the ocean liner. The former cater very successfully for the needs of the tourist to all parts of Scotland, while the latter vessels supply the whole world with merchandise. In between are the fine vessels trading to all the important ports of England, Scotland, and Ireland. The port is the terminal of the Caledonian, North British, and Glasgow and South Western Railways, and by their services it is in direct communication with all parts of Scotland and through Carlisle with the whole of England.

Coastwise Services:—

CLYDE PORTS—Caledonian Steam Packet Company, Ltd., Gourock.

LONDON, BELFAST, PLYMOUTH, DOVER, WATERFORD, SOUTHAMPTON, NEWHAVEN—Clyde Shipping Company, Ltd., Glasgow.

GREENOCK, BELFAST, BRISTOL, CARDIFF, SWANSEA, NEWPORT (Mon.) — Glasgow, Belfast, and Bristol Channel Service (Wm. Sloan & Co.), Glasgow.

CLYDE PORTS — Glasgow and South Western Railway Company, Greenock.

GREENOCK, DUBLIN, LONDONDERRY, COLERAINE, SLIGO, BALLINA, and WESTPORT; AYR and BELFAST, AYR and LARNE, and PORTRUSH via Ardrossan — Laird Line, Ltd., Glasgow.

LIVERPOOL, calling at Greenock, and MANCHESTER — M. Langlands & Sons, Glasgow.

GREENOCK, OBAN, BALLACHULISH, FORT WILLIAM, FORT AUGUSTUS, INVERNESS, MALLAIG, and KYLE OF LOCHALSH, STORNOWAY, and WEST HIGHLANDS OF SCOTLAND — David Macbrayne, Ltd., Glasgow.

BELFAST via Greenock and via Ardrossan; DUBLIN via Greenock; LONDONDERRY via Greenock and Moville; MANCHESTER; LIVERPOOL via Greenock — Scotch and Irish Royal Mail Line (G. & J. Burns, Ltd.), Glasgow.

A service is also carried on between CAMPBELTOWN and GLASGOW via Greenock and Gourock, Lochranza and Pirnmill in Arran, and Carradale in Kintyre, by the steamers of the—

Campbeltown and Glasgow Steam Packet Joint Stock Company, Ltd., Campbeltown, Argyllshire.

Other steamship companies having local services covering various parts of Scotland are the following:—

Lochgoil and Inveraray Steamboat Company, Ltd.

M'Callum Line.

Martin, Orme, & Co.'s Steamers.

North British Railway Company's Steamers.

Turbine Steamers, Ltd.

Continental Services:—

LISBON and HUELVA — Baron Line (H. Hogarth & Sons), Glasgow.

GIBRALTAR, ALGIERS, MALTA, and ALEXANDRIA — Moss Line, Liverpool.

Canadian Services:—

QUEBEC and MONTREAL (summer), PORTLAND, Me., ST. JOHN'S, NF., HALIFAX, N.S. (winter) — Allan Line, Glasgow.

QUEBEC and MONTREAL (summer), ST. JOHN (N.B.) (winter) — Donaldson Line, Glasgow.

United States Services:—

PHILADELPHIA and BOSTON — Allan Line, Glasgow.

NEW YORK — Anchor Line (Henderson Brothers, Ltd.), Glasgow.

West Indies:—

BARBADOS, TRINIDAD, and DEMERARA — "Direct" Line, Glasgow.

South American Services:—

MONTEVIDEO, BUENOS AYRES, and ROSARIO — Allan Line, Glasgow.

Indian Services:—

BOMBAY and CALCUTTA — Anchor Line (Henderson Brothers, Ltd.), Glasgow.

INDIAN PORTS and the FAR EAST — Baron Line (H. Hogarth & Sons), Glasgow.

COLOMBO and RANGOON, calling at MARSEILLES and PORT SAID — Bibby Brothers & Co., Liverpool.

COLOMBO and MADRAS, CALCUTTA, BOMBAY, KARACHI — City and City and Hall Lines, Glasgow.

RANGOON, calling at PORT SAID and SUEZ — P. Henderson & Co., Glasgow.

Australian Services:—

CAPE TOWN, ADELAIDE, MELBOURNE, and SYDNEY, calling at FISHGUARD and LAS PALMAS — Blue Funnel Line (A. Holt & Co.), Liverpool.

Goole

The port of Goole is the most inland port on the East Coast, and is important as a centre for dispatching and receiving produce and merchandise from the great industrial districts of Lancashire and Yorkshire to the Continent, and vice versa. It is the exclusive seaport of the Lancashire and Yorkshire Railway, which taps the whole of the great area covered by these two counties, and it is also the terminal of the Aire and Calder Navigation, a progressive canal system which is an important factor in the commercial life of the district it serves. By means of the Goole Steam Shipping services of the Lancashire and Yorkshire Railway the port is in direct communication with Holland, Denmark, Belgium, France, and Germany.

Goole (Lancashire and Yorkshire Railway) is the headquarters of the Goole Steam Shipping, sailing to AMSTERDAM, ANTWERP, BRUGES, COPENHAGEN, DELFZIEL, DUNKIRK, GHENT, HAMBURG, and ROTTERDAM, also to JERSEY, C.I., during the potato season. There is also a service to BOULOGNE three times a week (Bennett Steamship Company, Ltd.).

Grangemouth

The port of Grangemouth is only twenty-six miles from Glasgow, with which city it is connected by the Caledonian Railway, the owners of the port. By the rail connections of this railway it is therefore in communication with all parts of the United Kingdom. The Forth and Clyde Canal, also the property of the Caledonian Railway, extends from Grangemouth to the Clyde, affording cheap transit for heavy merchandise.

Steamship Lines:—LONDON, also to HULL and LYNN (goods only)—Carron Line, Glasgow.

HAMBURG (cargo only)—Leith, Hull, and Hamburg Steam Packet Company, Ltd.

AMSTERDAM, ANTWERP (cargo only) — Leith, Rotterdam, and Antwerp Shipping Company (G. Gibson & Co.), Leith.

ROTTERDAM, AMSTERDAM, & DIEPPE—James Rankine & Son, Glasgow.

LEITH, MIDDLESBOROUGH, and BOSTON (cargo only) — Forth Shipping Company (Andrew Weir & Co.), Glasgow.

CHRISTIANIA, CHRISTIANSAND, & ARENDAL—Faerder Steamship Company, Ltd., Grangemouth.

BERGEN and DRONTHEIM, STOCKHOLM, HELSINGFORS—J. T. Salveson & Co., Grangemouth.

Grimsby

This port is owned by the Great Central Railway Company, which maintains a number of services to the Continent. Grimsby has always occupied a leading position as a fishing port; but it is owing to the enterprise of the Great Central Railway that it is now recognized as an important starting-point for passengers and goods from the North of England to all parts of the Continent.

The steamers of the company maintain services to Hamburg every weekday, and to Antwerp and Rotterdam three days a week.

In addition to the Great Central Railway services, Grimsby is the port of departure for the following services:—

ESBJERG — United Steamship Company, of Copenhagen.

GOTHENBURG, MALMO, LANDSCRONA, HALMSTAD, CHRISTIANIA, and RIGA—Wilson Line.

ST. THOMAS, HAYTI, ST. DOMINGO, MEXICO, VENEZUELA, CUBA, PORTO RICO, and THE SPANISH MAIN, also via COLON to NORTH and SOUTH PACIFIC PORTS (direct and via Hamburg)—Hamburg-American Line.

DIEPPE (cargo only)—Worms & Co.

Harwich

Harwich is the special preserve of the Great Eastern Railway, which maintains the express service via the Hook of Holland to all parts of the Continent. Trains run from London connecting with the company's own vessels at Parkeston Quay. Turbine steamers carry passengers to the Hook, and twin-screw steamers carry passengers to Antwerp. It is also the port for the following lines:—

Continental Services:—

ESBJERG—United Shipping Company, London.

GOTHENBURG—Thule Steamship Company, Ltd. Agents, British and Northern Shipping Agency, Ltd., London.

Heysham

Heysham is a small seaport town, and is only of importance as the connecting link between England and Ireland by the Midland Railway Company's direct route to Belfast and the North of Ireland and the Isle of Man.

Services are also maintained by the Laird Line to DUBLIN; and to LONDONDERRY.

Holyhead

Holyhead is chiefly used by the cross-channel steamers to and from Ireland. The City of Dublin Steam Packet Company have a fine fleet of boats which carry the mails and passengers between Holyhead and Kingstown twice each way daily, and the London and North Western Railway have als a fine fleet of passenger and cargo steamers running daily between Holyhead and Dublin, Holyhead and Greenore, and Holyhead and Kingstown.

Hull

The port of Hull is served by the North Eastern and Hull and Barnsley Railways, both of which companies have their own docks. It is exceptionally fortunate in its inland waterways, which give it direct access to the whole of the great industrial centres of the North and Midlands. These include the Aire and Calder Navigation; the Ouse and Foss Navigations; the Sheffield and South Yorkshire Navigation; and the Trent Navigation. By means of the two railway systems and their connections Hull is in communication with every part of Great Britain. Steamship services are run not only to the Continent but to all parts of the world. The reputation of the Wilson Line (Thomas Wilson, Sons, & Co., Ltd.) is second to none, and their steamship services are widespread.

The Coastwise Services:—

LIVERPOOL and NEWCASTLE, and to JERSEY in the potato season—Thos. Wilson, Sons, & Co., Ltd., Hull.

LONDON — Haller's Line of Steamers (cargo only)—G. R. Haller, Ltd., Hull.

Continental Services:—

COPENHAGEN, HELSINGFORS (winter, Hango) ABO, SEITE,—Finland Steamship Company, Ltd. (John Good & Sons, Ltd.), Hull.

ROTTERDAM, AMSTERDAM, HARLINGEN — Hull and Netherlands Steamship Company, Ltd., Hull.

NORWAY and SWEDEN, COPENHAGEN and LOWER and UPPER BALTIC PORTS: to Italian, Adriatic,

and Black Sea Ports—Wilson Line (Thos. Wilson, Sons, & Co., Ltd.), Hull.

HAMBURG, ANTWERP, GHENT, and DUNKIRK—Wilsons and North-Eastern Railway Shipping Company, Ltd., Hull.

United States Service:—

NEW YORK and BOSTON, U.S.A.—Thos. Wilson, Sons, & Co., Ltd., Hull.

Indian Services:—

BOMBAY and KARACHI—Thos. Wilson, Sons, & Co., Ltd., Hull.

Hull is also a port of call for—

Argo Steamship Company, London.

Aberdeen, Newcastle, & Hull Steam Company, Ltd. (See "Aberdeen".)

W. Milburn & Company. (See "London".)

General Steam Navigation Company. (See "London".)

Langlands Line. (See "Liverpool".)

Dundee, Perth, and London Shipping Company. (See "Dundee".)

Leith

Leith is the port of Edinburgh, of which it practically forms a part. Its harbours and quays are directly connected by rail with all parts of Scotland, Edinburgh being the headquarters of the North British Railway system.

The following steamship lines make the port their headquarters:—

Coastwise Services:—

PORTOBELLO, KIRKCALDY, &c.—Galloway Saloon Steam Packet Company.

LONDON — London and Edinburgh Shipping Company, Ltd.

HULL, NEWCASTLE, and SUNDERLAND — Leith, Hull, and Hamburg Steam Packet Company, Ltd., Leith.

Continental Services:—

CHRISTIANSAND, COPENHAGEN, HAMBURG — J. Currie & Company, Leith.

ROTTERDAM, ANTWERP, AMSTERDAM, HARLINGEN, GHENT, DUNKIRK — Leith, Rotterdam, and Antwerp Shipping Company, Leith.

Leith is also a port of call for the Langlands Line. (See "Liverpool".)

Liverpool.

The chief feature of Liverpool as a port is its floating landing stage, which is the largest in the world and accommodates the gigantic liners of the Atlantic services. Here may be seen the vessels of the Cunard, White Star, Allan, Canadian Pacific Railway, and many other companies starting upon their voyage and later finishing at the same point after a journey across the Atlantic, occupying a period of time which would have sounded incredible a few years ago. Liverpool is also within four hours' train journey of London by the expresses of the London and North Western Railway, and in a little longer time by the Great Northern Railway, Midland Railway, Great Central Railway, and the Great Western Railway.

It is the home of many historic steamship companies which are included in the following list:—

Coastwise Services:—

WEXFORD, BRISTOL, SWANSEA, PORT TALBOT, and MILFORD HAVEN—Bacon Line, Liverpool.

DROGHEDA—Lancashire and Yorkshire Railway Steamship Services, Liverpool.

GLASGOW and GREENOCK, MANCHESTER, ABERDEEN, LEITH, KIRKCALDY, DUNDEE, NEWCASTLE, MIDDLESBROUGH, SUNDERLAND, INVERNESS, STORNOWAY, STROMNESS, &c.—Langlands Line.

LLANDUDNO, BEAUMARIS, BANGOR, and MENAI BRIDGE—Liverpool and North Wales Steamship Company, Ltd., Liverpool.

SILLOTH — North British Steam Packet Company, Glasgow.

LONDON, calling at SOUTHAMPTON, PORTSMOUTH, PLYMOUTH, FALMOUTH, SOUTHAMPTON — Powell & Hough Line, Liverpool.

DUBLIN, WHITEHAVEN, MARYPORT—Tedcastle, M'Cormick, & Co., Ltd., Liverpool.

Continental Services:—

GIBRALTAR, TANGIER, ALGIERS, MALTA, ALEXANDRIA, CORFU, PATRAS, SYRIA, SMYRNA, CONSTANTINOPLE, ODESSA, SAMSOUN, TREBIZONDE, BATOUM; also LISBON and OPORTO—Ellerman and Papayanni Lines, Liverpool.

BORDEAUX, GIBRALTAR, MALTA, SYRIA, SMYRNA, CONSTANTINOPLE, ALGIERS, ALEXANDRIA — Jas. Moss & Co., Liverpool.

BALTIC PORTS (cargo only)—Stott Line (W. H. Stott & Co., Ltd.), Liverpool.

Canary Island Service:—

LAS PALMAS, SANTA CRUZ (Teneriffe) via LISBON and MADEIRA—Yeoward Brothers, Liverpool.

African Services:—

WEST COAST OF AFRICA PORTS (four services)—African Steamship Company and British and African Steam Navigation Company, Ltd. (Elder, Dempster, & Co., Ltd.), Liverpool.

CAPE TOWN, MOSSEL BAY, ALGOA BAY, EAST LONDON, NATAL, DELAGOA BAY, BEIRA, aud MAURITIUS (cargo only)—Clan Line, Liverpool.

African and Red Sea Services:—

PORT SAID, SUEZ, PORT SOUDAN, ADEN, MOMBASA, KILLINDINE, TANGA, ZANZIBAR, CHINDE (cargo only)—Harrison Line, Liverpool.

Canadian Services:—

QUEBEC, MONTREAL (summer), HALIFAX, N.S.,

St. John, N.B., (winter), St. John's, NF.—Allan Brothers & Co. (U.K.), Ltd., Liverpool.

Montreal, Quebec, St. John, N.B.—Canadian Pacific Railway Ocean Services, Liverpool.

St. John's, NF., Halifax, N.S.—Furness-Allan Line, Liverpool.

Quebec and Montreal—White Star-Dominion Line (Ismay, Imrie, & Co.), Liverpool.

United States Services:—

Philadelphia—Allan Brothers & Co. (U.K.), Ltd., Liverpool.

Philadelphia, calling at Queenstown—American Line, Liverpool.

New York, Boston — Cunard Line, Liverpool.

Galveston (Texas)—Gulf Transport Line (J. H. Welsford & Co., Ltd.), Liverpool.

New Orleans, Galveston—Harrison Line, Liverpool.

Boston, New Orleans—Leyland Line (F. Leyland & Co., Ltd.), Liverpool.

New York, Boston, calling at Queenstown—White Star Line (Ismay, Imrie, & Co.), Liverpool.

West Indies Services:—

Barbados, Trinidad, Demerara, La Guayra, Puerto Cabello, Curaçao (cargo only)—Harrison Line, Liverpool.

Cuban Ports: Havana, Matanzos, Cardenas, Santiago-de-Cuba, Manxinillo, and Cienfuegos (cargo only)—Larrinaga Line, Liverpool.

St. Thomas, Puerto Colombia, Colon, Kingston, Tampico, Vera Cruz, Progreso, Barbados, Trinidad, La Guayra, Puerto Cabello, Curaçao, Cartagena—Leyland Line (F. Leyland & Co., Ltd.), Liverpool.

Cuban Ports: Havana, Matanzos, Caibarien, Santiago-de-Cuba, Cienfuegos—Linea de Vapores de Arrotequi (J. Glynn & Son), Liverpool.

Mexican and North Pacific Services:—

Salina Cruz, San Pedro, San Francisco, Victoria, V.I., and Vancouver, B.C. (cargo only)—Harrison Line, Liverpool.

South American Services:—

Montevideo, Buenos Ayres, and Rosario—Allan Line, Liverpool.

Buenos Ayres, calling at Vigo and Lisbon—Argentine Cargo Line, Liverpool.

Para, Manaos, calling at Havre, Vigo, Leixoes (Oporto), Lisbon, and Madeira, Maranham, Ceara, and Parnahyba—Booth Line, Liverpool.

Pernambuco, Maceio (cargo only)—Harrison Line, Liverpool.

Montevideo, Buenos Ayres, La Plata, Rosario, and Bahia Blanca — Houston Line, Liverpool

Bahia, Rio de Janeiro, Santos; Buenos Ayres, Monte Video, Rosario, and West Coast ports—Lamport & Holt, Liverpool.

Buenos Ayres, Montevideo, Rosario—David MacIver & Co., Liverpool.

Montevideo, Buenos Ayres, Rosario—H. & W. Nelson, Ltd., Liverpool.

La Rochelle-Pallice, Corunna, Vigo, Leixoes, Lisbon, St. Vincent, Pernambuco, Bahia, Rio de Janeiro, Santos, Montevideo, Punta Arenas, Coronel, Talcahuano, Valparaiso, Coquimbo, Antofagasta, Iquique, Arica, Mollendo, Callao — The Pacific Steam Navigation Company, Liverpool.

Indian Services:—

Bombay and Calcutta—Anchor Line, Glasgow.

Calcutta—T. & J. Brocklebank, Ltd., Liverpool.

Colombo, Madras, and Calcutta—City Line and City and Hall Lines (joint service), Liverpool

Bombay, Colombo, Madras, and Calcutta, Chittagong (cargo only)—Clan Line, Liverpool.

Calcutta (cargo only)—Harrison Line, Liverpool.

Rangoon—Henderson Line, Liverpool

Australian Services:—

Adelaide, Melbourne, Sydney, and Brisbane, via Cape of Good Hope. Auckland, Wellington, Lyttelton, and Dunedin, via Cape of Good Hope—Federal-Houlder-Shire Line, London.

Albany, Adelaide, Melbourne, Sydney, calling at Cape Town—White Star Line, Liverpool.

New Zealand Services:—

Auckland, Wellington (cargo only)—White Star Line (Ismay, Imrie, & Co.), Liverpool.

Liverpool is also a port of call for the following:—

Isle of Man Steam Packet Company, Ltd. (See "Douglas, Isle of Man").

City of Dublin Steam Packet Company. (See "Dublin".)

Scotch and Irish Royal Mail Line. (See "Glasgow".)

Laird Line, Ltd. (See "Glasgow".)

Belfast Steamship Company, Ltd. (See "Belfast".)

Waterford Steamship Company, Ltd. (See "Waterford".)

City of Cork Steam Packet Company. (See "Cork".)

London

The shipping trade of the Port of London is of so cosmopolitan a character that practically every section may be said to be represented, with the

exception of the largest ocean liners. It is the home of the great services to Australia and New Zealand and to many other parts of the world. From London many services are maintained to British ports, and a great cargo and passenger trade by water has been built up, running as regularly as, and in some cases conveying goods in less time than, the railway service.

London is also the centre of a great transhipment trade, steamship companies finding it cheaper to send goods to the Port of London and from there to Continental and other ports.

The list of steamship companies and their services given below will show how varied are the routes covered by vessels using the port.

Coastwise Services:—

ABERDEEN—Aberdeen Steam Navigation Company, Limehouse, E.

GRANGEMOUTH, BO'NESS—Carron Line.

CORK—City of Cork Steam Packet Company, Ltd., Cork.

GLASGOW and GREENOCK via BELFAST and via SOUTHAMPTON, PLYMOUTH, WATERFORD, and direct—Clyde Shipping Company, Ltd.

DUNDEE—Dundee, Perth, and London Shipping Company, Dundee Wharf, Limehouse, E.

LEITH, HULL, GRIMSBY, YARMOUTH, LOWESTOFT, and NORWICH—General Steam Navigation Company, Ltd.

HULL and GRIMSBY—Haller's Line (George R. Haller, Ltd.).

BRISTOL, DARTMOUTH, TORQUAY, PLYMOUTH, and PENZANCE—Little Western Steamship Company (G. Bazeley & Sons).

JERSEY and GUERNSEY—London and Channel Islands Steamship Company, Ltd.

LEITH—London and Edinburgh Shipping Company, Ltd., Hermitage Steam Wharf, Wapping.

LIVERPOOL, calling at SOUTHAMPTON, PORTSMOUTH, PLYMOUTH, and FALMOUTH—Powell & Hough Line (J. D. Hewett & Co.).

NEWCASTLE—Tyne-Tees Steam Shipping Company, Ltd, Free Trade Wharf.

Continental Services:—

BREMEN—Argo Steamship Company

ROTTERDAM—Batavier Line, Custom House and Wool Quays.

BOULOGNE—The Bennett Steamship Company, Ltd., Chamberlain Wharf.

HAMBURG, OSTEND, ANTWERP, MONACO, GENOA, LEGHORN, NAPLES, MESSINA, and PALERMO. BORDEAUX, OPORTO, HARLINGEN, ROTTERDAM, AMSTERDAM—General Steam Navigation Company, Ltd.

LISBON, GIBRALTAR, MALAGA, CADIZ—Hall's Line.

AMSTERDAM—Holland Steamship Company, The British Amsterdam Maritime Agency, Ltd.

GHENT—Leach & Co.

ST. PETERSBURG (cargo only)—Northern Steamship Company, Ltd. (J. D. Hewett & Co.).

RIGA—United Shipping Company, Ltd.

Mediterranean Services:—

GIBRALTAR, MARSEILLES, MALTA, PORT SAID—P. & O. Steam Navigation Company.

Mediterranean and Red Sea Services:—

MARSEILLES, PORT SAID, SUEZ, ADEN, BUNDAR ABBAS, BUSHIRE, and BUSHREH, calling at Red Sea ports—Frank Strick & Co., Ltd.

MALTA, ALEXANDRIA, JAFFA, BEYROUT, ALEXANDRETTA, and CYPRUS—Prince Line.

MALTA, GIBRALTAR, ALEXANDRIA, CONSTANTINOPLE, BLACK SEA and DANUBE PORTS—Westcott & Lawrence Line.

African Services:—

DURBAN direct, calling at PORTLAND for dispatches, and TENERIFFE, or LAS PALMAS, then on to DELAGOA BAY, INHAMBANE, BEIRA, CHINDE, MOZAMBIQUE, ZANZIBAR, MOMBASA—The Aberdeen Direct Line (Rennie's).

CAPE TOWN—Aberdeen Line (Thompson's).

ADEN, PORT SOUDAN, MOMBASA, and ZANZIBAR—British India Line (Gray, Dawes, & Co.).

CAPE TOWN, ALGOA BAY, EAST LONDON, NATAL, calling at TENERIFFE—Bucknall Steamship Lines, Ltd.

NATAL, DELAGOA BAY, and BEIRA via LAS PALMAS—Natal Line (Bullard, King, & Co.).

CAPE TOWN—Federal-Houlder-Shire Line.

GIBRALTAR, TANGIER, CASABLANCA, MAZAGAN, SAFFI, MOGADOR, LAS PALMAS, TENERIFFE, MADEIRA—Royal Mail Steam Packet Company.

CAPE COLONY, NATAL, DELAGOA BAY, MAURITIUS, BEIRA, &c., via LAS PALMAS or TENERIFFE, calling at SOUTHAMPTON; also MARSEILLES, NAPLES, PORT SAID, PORT SOUDAN, ADEN, MOMBASSA, ZANZIBAR, MOZAMBIQUE, CHINDE, BEIRA, LOURENÇO MARQUES, and NATAL—Union-Castle Line.

Canadian Services:—

QUEBEC and MONTREAL (summer), HALIFAX and ST. JOHN, N.B. (winter)—Allan Line, London.

HALIFAX, N.S.; ST. JOHN, N.B.; and St. JOHN'S, NF.—Furness Line.

United States Services:—

NEW YORK—Atlantic Transport Line.

PHILADELPHIA, CHARLESTON, SAVANNAH, NEWPORT NEWS, and NORFOLK—Furness Line.

NEW ORLEANS—Leyland Line.

Services to West Indies:—

BERMUDA, CUBA, TAMPICO, VERA CRUZ, COATZACOALCOS (PUERTO MEXICO)—Cuban Line (E. Bigland & Co.).

Barbados, Grenada, Trinidad, Demerara, St. Lucia, Dominica, Montserrat, Antigua, St. Kitts, Jamaica, Limon, Colon, St. Vincent, Nevis, &c. — "Direct" Line of Steam Packets (Scrutton, Sons, & Co.).

St. Thomas, Antigua, Dominica, St. Kitts, St. Lucia, Barbados, Martinique, Trinidad, Demerara, and Paramaribo—East Asiatic Company (West India Line) (Escombe, M'Grath, & Co.).

American Services:—

Buenos Ayres, Montevideo, Rosario — Houlder Brothers & Co., Ltd.

West Coast of South, Central, and North America via the Straits of Magellan—Kosmos Line (Browne, Geveke, & Co.).

Indian Services:—

Bombay, Calcutta, Colombo, Karachi, Madras—British India Line (Gray, Dawes, & Co.).

Calcutta, Colombo — T. & J. Brocklebank, Ltd.

Bombay, Calcutta, Colombo, calling at Aden and frequently at Malta—P. & O. Steam Navigation Company.

Straits, China, and Japan Services:—

Port Said, Penang, Port Swettenham, Singapore, Hong-Kong, Shanghai, Nagasaki, Kobe, and Yokohama—Glen Line (M'Gregor, Gow, & Co.).

Colombo, Singapore, Hong-Kong, and Japanese ports, via Marseilles—Nippon Yusen Kaisha (Japan Mail Steamship Company, Ltd.).

Colombo, Penang, Singapore, Hong-Kong, Shanghai—P. & O. Steam Navigation Company.

Port Said, Colombo, Penang, Singapore, Hong-Kong, Shanghai, Yokohama—Shire Line, Ltd.

Australian and New Zealand Services:—

Adelaide, Auckland, Brisbane, Fremantle, Hobart, Launceston, Melbourne, Sydney, Wellington—Aberdeen Line (Thompson's).

Thursday Island, Cairn, Townsville, Rockhampton, and Brisbane via Suez Canal—The Federal-Houlder-Shire Lines.

Adelaide, Melbourne, Sydney—W. Milburn & Co.

Wellington, calling at Teneriffe, Cape Town, and Hobart — New Zealand Shipping Company, Ltd.

Adelaide, Auckland, Brisbane, Fremantle, Hobart, Launceston, Lyttelton, Mackay, Maryborough, Melbourne, Nelson, Normanton, Rockhampton, Sydney, Thursday Island, Townsville, Wellington — Orient Line (F. Green & Co.).

Fremantle, Adelaide, Melbourne, and Sydney—P. & O. Steam Navigation Company.

Adelaide, Melbourne, Sydney, calling at Las Palmas, Cape Town—P. & O. Branch Service.

Thursday Island, Cairns, Townsville, Rockhampton, Brisbane—Queensland Line (Gray, Dawes, & Co.).

Auckland, Bluff, Gisborne, Greymouth, Lyttelton, Napier, Nelson, New Plymouth, Oamaru, Otago, Picton, Timaru, Wanganui, Wellington, and Westport, calling on outward voyage at Plymouth, Teneriffe, Cape Town, and Hobart—Shaw, Savill, and Albion Company, Ltd.

Melbourne and Sydney, Auckland, Wellington, and Hawkes Bay (cargo only)—Tyser Line, Ltd.

Plymouth, Teneriffe, Cape Town, Hobart, and New Zealand Ports—White Star Line, London.

Londonderry

Londonderry, on Lough Foyle, is served by the Great Northern Railway of Ireland and the Midland Railway Company Northern Counties Committee, which bring it into direct connection with Belfast, and via Larne and Stranraer, Belfast and Heysham, Belfast and Barrow, Belfast and Liverpool, into communication with all parts of England. The steamers of the Anchor Line to New York call here *en route*, and so do the vessels of the Allan Line on their voyage to Canada and to Boston. Besides these lines it is a port of call for the following services:—

Lancashire and Yorkshire Railway Steamship Service. (See "Fleetwood".)

Scotch and Irish Royal Mail Line. (See "Glasgow".)

Laird Line, Ltd. (See "Glasgow".)

Belfast Steamship Company, Ltd. (See "Belfast".)

Manchester

Manchester is now as much a port as any in the United Kingdom, thanks to the Manchester Ship Canal. The Manchester Dock Railways are eighty miles in extent, and completely intersect the Dock Estate. The following railways connect with the docks: London and North Western, Lancashire and Yorkshire, Great Northern, Midland, Great Central, and Cheshire Lines. Traffic can be conveyed in railway wagons between the various loading and discharging berths at the docks and other places in the Ship Canal and over the various lines to every railway station in Britain. It is the headquarters of the following lines:—

Coastwise Services:—

Dublin — Dublin and Manchester Steamship Company, Pomona Docks.



WEST INDIA DOCK, LONDON



TILBURY DOCKS, LONDON

GLASGOW, ABERDEEN, LEITH, KIRKCALDY, DUNDEE, NEWCASTLE, MIDDLESBROUGH, SUNDERLAND, INVERNESS, STORNOWAY, STROMNESS—Langlands Line.

GLASGOW—Scotch and Irish Royal Mail Line (G. & J. Burns, Ltd.), Glasgow.

Continental Services:—

BORDEAUX—Moss Line.

BALTIC PORTS (cargo only)—Stott Line (W. H. Stott & Co., Ltd.), Manchester.

CHRISTIANIA, DRAMMEN, PORSGRUND, REVAL, ST. PETERSBURG—Wilson Line (Thos. Wilson, Sons, & Co., Ltd.), Hull.

Mediterranean Services:—

TUNIS, MALTA, ALEXANDRIA—Prince Line, Newcastle-on-Tyne.

Canadian Services:—QUEBEC, MONTREAL (during summer), HALIFAX, N.S., St. John, N.B. (during winter)—Manchester Liners, Ltd.

United States Services:—

PHILADELPHIA, NEW ORLEANS—Manchester Liners, Ltd.

West Indies Services:—

PORT LIMON (COSTA RICA)—Elders & Fyffes, Ltd., Manchester

Middlesbrough

Middlesbrough is served by the North Eastern Railway, which has a good dock there. It is a port of call for the following:—

Langlands Line. (See "Liverpool".)

General Steam Navigation Company. (See "London".)

Milburn Line. (See "London".)

Newcastle-on-Tyne

Newcastle-on-Tyne is served by the North Eastern Railway Company, and as an industrial centre occupies a most important position. Several steamship companies have their headquarters there, and others make it a port of call for cargo.

The principal service is that of the Norwegian Royal Mail, and passenger steamers sail from the port on alternate weekdays. Amongst other lines are the following:—

LONDON and EAST COAST PORTS—Tyne-Tees Steam Shipping Company, Ltd., Free Trade Wharf, London, and Newcastle.

ANTWERP, HAMBURG, ROTTERDAM, GHENT—Tyne-Tees Steam Shipping Company, Ltd., Free Trade Wharf, London, and Newcastle.

BERGEN, TRONDHJEM, STAVANGER, ARENDAL, and CHRISTIANIA—P. H. Mathiessen & Co., Newcastle.

SUNDERLAND, WEST HARTLEPOOL, LIVERPOOL, and GLASGOW, sailing from GOTHENBURG—Svithiod Steamship Company, Newcastle.

ORAN, ALGIERS, TUNIS, TRIESTE, FIUME, VENICE, ANCONA, BARI, SMYRNA, starting from HAMBURG—Deutsche-Levante Line, Hamburg.

It is also a port of call for—

Aberdeen, Newcastle, and Hull Steam Company, Ltd. (See "Aberdeen".)

Langlands Line. (See "Liverpool".)

Wilson Line. (See "Hull".)

Newhaven

Newhaven is the port from which the steamers connecting London with Paris by the London, Brighton, and South Coast Railway route sail for Dieppe. There is also a service to Caen via the Ouistreham Canal for Lower Normandy, Brittany, Loire Valley, &c., and for this two new steamers have been built which carry a limited number of saloon passengers.

Penzance

Penzance is the headquarters of the Little Western Steamship Company, owned by Messrs. G. Bazeley & Sons, Ltd., carrying passengers and goods between London and Bristol, Dartmouth, Torquay, Plymouth, and Penzance. It is served by the Great Western Railway.

Plymouth

Plymouth is served by the Great Western Railway, and is used by steamship lines for landing passengers and mails to save the time occupied by the voyage up the English Channel and the River Thames. By arrangement with the Shipping Companies steam tenders meet vessels on arrival and passengers are taken direct to the Great Western Railway Docks Station and thence to London. The journey is performed by special express trains in a little over four hours. The boats of the Great Western Railway start from Plymouth for Brest and Nantes.

The Anglo-French Steamship Company, Ltd., maintain a service between Plymouth, Guernsey, Jersey and St. Brieux, and also between Plymouth and Tréguier.

Plymouth is also a port of call for—

Aberdeen Line (Thompson's). (See "London".)

African Steamship Company. (See "Liverpool".)

American Line. (See "Southampton".)

Bristol Steam Navigation Company. (See "Bristol".)

British India Steam Navigation Company. (See "London".)

British & Irish Steam Packet Company. (See "Dublin".)

Bucknall Steamship Lines, Ltd. (See "London".)

Clyde Shipping Company, Ltd. (See "London".)

City of Cork Steam Packet Company, Ltd. (See "Cork".)

Cuban Steamship Company. (See "London".)

Hamburg-American Line. (See "Southampton".)

Holland Steamship Company. (See "London".)

Langlands Line. (See "Liverpool".)

Little Western Steamship Company. (See "Penzance".)

New Zealand Shipping Company, Ltd. (See "London".)

Norddeutscher Lloyd. (See "Southampton".)

Orient Line. (See "London".)

P. & O. Branch. (See "London".)

P. & O. Steam Navigation Company. (See "London".)

Powell & Hough Line. (See "Liverpool".)

Shaw, Savill, & Albion Company, Ltd. (See "London".)

Union-Castle Line. (See "London".)

White Star Line. (See "Liverpool".)

Queenborough

Queenborough is the port of departure of the vessels of the Zeeland Steamship Company, in connection with the South Eastern and Chatham Railway for Flushing. The steamers maintain the day service between these two ports connecting London with the Continent. The sea passage occupies about six hours.

Southampton

The Southampton Docks are under the control of the London and South Western Railway, and, owing to its enterprise, Southampton has become one of the most important ports in the United Kingdom. Continental steamship companies use it as a port of call for many of their services. It is also the port for passengers for the Union-Castle and Royal Mail Steam Packet Company's boats. In 1907 the White Star Line adopted it as the port for its Wednesday service to New York carrying the mails. It has become a port for the Canadian trade, the Cunard making it the final port for its service.

The following lines make Southampton their headquarters:—

Channel Islands Services:—

JERSEY, GUERNSEY—London and South Western Railway Steamship Services.

Continental Services.—

HAVRE, CHERBOURG—London and South Western Railway Steamship Services.

African Services:—

CAPE TOWN, EAST LONDON, DELAGOA BAY, BEIRA, NATAL—Union-Castle Line (Donald Currie & Co.), London.

United States Services:—

NEW YORK, calling at CHERBOURG—American Line, Southampton.

NEW YORK, calling at CHERBOURG and QUEENSTOWN—White Star Line, Liverpool.

West Indies Services:—

BARBADOS, TRINIDAD, PUERTO COLOMBIA, CARTAGENA, COLON, JAMAICA, and ANTILLA (CUBA), the voyage ending at NEW YORK—Royal Mail Steam Packet Company, London.

South American Services:—

CHERBOURG, CORUNNA, VIGO, OPORTO, LISBON, MADEIRA, CAPE VERDE, PERNAMBUCO, BAHIA, RIO DE JANEIRO, SANTOS, MONTEVIDEO, and BUENOS AYRES—Royal Mail Steam Packet Company, London.

Important services are also maintained by the following Continental steamship companies, using Southampton as a port of call:—

African Services:—

CAPE COLONY, DURBAN, DELAGOA BAY, starting from BREMERHAVEN and HAMBURG — Deutsche Ost-Afrika Linie.

American Services:—

MONTEVIDEO, RIO DE JANEIRO, BUENOS AYRES, starting from HAMBURG — Hamburg - American Line, London.

United States Services:—

NEW YORK, starting from BREMERHAVEN and calling at CHERBOURG — Norddeutscher Lloyd (Keller, Wallis, & Co.), London and Southampton.

NEW YORK, starting from HAMBURG and calling at CHERBOURG — Hamburg-Amerika Linie, London.

West Indies Services:—

HAVANA, VERA CRUZ, TAMPICO, starting from Hamburg—The Hamburg-Amerika Linie, London.

Services to Far East:—

EGYPT, COLOMBO, SABANG (SUMATRA), SINGAPORE, BATAVIA, SAMARANG, and SOURABAYA, starting from AMSTERDAM and calling at LISBON, TANGIER, ALGIERS, and GENOA—Nederland Royal Mail Line, Amsterdam, or H. V. Elkins, London.

PENANG, SINGAPORE, HONG-KONG, SHANGHAI, NAGASAKI, KOBE, YOKOHAMA, starting from BREMERHAVEN and calling at GIBRALTAR, ALGIERS, GENOA, NAPLES, PORT SAID, ADEN, COLOMBO—Norddeutscher Lloyd (Keller, Wallis, & Co.), London and Southampton.

COLOMBO, PADANG, BATAVIA, SAMARANG, and SOURABAYA, starting from ROTTERDAM and calling at LISBON, TANGIER, GIBRALTAR, MARSEILLES, PORT SAID, and SUEZ — Rotterdamsche Lloyd (Ruys & Co.), Rotterdam, or Escombe, M'Grath & Co., Southampton and London.

Australian Services:—

FREMANTLE, ADELAIDE, MELBOURNE, and SYDNEY, starting from BREMERHAVEN and calling at ALGIERS, GENOA, NAPLES, PORT SAID, SUEZ, ADEN, COLOMBO—Norddeutscher Lloyd (Keller, Wallis, & Co.), London and Southampton.

It is also a port of call for—

British and Irish Steam Packet Company. (See "Dublin".)

City of Cork Steam Packet Company. (See "Cork".)

Clyde Shipping Company, Ltd. (See "Glasgow".)

Langlands Line. (See "Liverpool".)

Powell & Hough Lines. (See "Liverpool".)

Sunderland

Two coastwise companies make their headquarters at Sunderland—the Currie Line, sailing every Friday to Leith, and the "Havelock" Line sailing between London, Scarborough, and Sunderland.

The port is served by the North Eastern Railway, which owns the North Dock, while the docks on the south side of the river are owned by the Wear Commissioners, in whom the port is vested.

Sunderland is a port of call for—

Langlands Line. (See "Liverpool".)

Waterford

Waterford is in connection with England by the Great Western Railway service, via Rosslare and Fishguard. It is also served by the Dublin and South Eastern Railway.

The Waterford Steamship Company, Ltd., has its headquarters there with services to Bristol and to Liverpool.

Waterford is also a port of call for—

Great Western Railway Service. (See "Fishguard".)

Clyde Shipping Company, Ltd. (See "Glasgow".)

West Hartlepool

West Hartlepool is served by the North Eastern Railway, and is the headquarters of the West Hartlepool Steam Navigation Company, Ltd., which maintains a regular service of steamers to Hamburg. It is also a port of call for the Svithiod Steamship Company of Gothenburg and the Tyne-Tees Shipping Company of Newcastle-on-Tyne.

Weymouth

Weymouth is the port of the Great Western Railway from which the Company's steamers to the Channel Islands sail. There is a daily service to Jersey and Guernsey during the summer months and three times a week during the winter. Weymouth is also the headquarters of the boats owned by Cosens and Co., Ltd., sailing between Weymouth, Swanage, and Bournemouth and Ryde (Isle of Wight), Cowes, Southsea, and Brighton, and Torquay, Exmouth, Teignmouth, and Dartmouth.

THE GREAT TRADE ROUTES

Having given a list of the ports of the United Kingdom, with the steamship companies either making them their headquarters or a port of call for their services, it is now proposed to deal in more extended form with the ocean services maintained by the great steamship companies. These have been divided into eight groups of ports:—

1. Canadian ports.
2. Australian and New Zealand ports.
3. United States ports.
4. Central American and West Indian ports.
5. South American ports.
6. African ports.
7. Indian ports.
8. Straits, China, and Japan ports.

Under these headings will be found practical information about the various steamship companies maintaining services to the ports dealt with, together with particulars of the vessels, and this will enable the reader to form a fair estimate of the importance of the fleets engaged in the services of any particular company.

CANADIAN PORTS

The service of first-class steamers from this country to Canada has recently developed in an unprecedented manner, and the reason is not far to seek. The Dominion is crying out for settlers, and leading steamship companies in this country have not been slow to realize the vast field which

is opening up with ever-increasing rapidity for traffic between the mother country and Canada. No less than five first-class companies are now running services from various ports of Britain to Canada, and the first deserving of mention is undoubtedly the Allan Line, which for so long held the field by itself. It is necessary to go back to the year 1856 to find the first mail service between the two countries, this being carried out by the Allan Line at the request of the Canadian Government. Three ports are utilized by this company, namely, Glasgow, Liverpool, and London.

The Canadian Pacific Railway run the well-known "Empress" boats from Liverpool; the Royal Line of steamers, owned by the Canadian Northern Railway of Canada, maintain a service from Bristol; the White Star Line, in conjunction with the Dominion Line, start their services from Liverpool; while the Cunard Company entered the Canadian trade by purchasing the already established service of the Cairn Line. Their base is London, with Southampton as the port for passengers. In addition to these lines, the Donaldson Line from Glasgow, the Furness Line from London, and the Manchester Liners from Manchester, maintain services of steamers carrying both passengers and goods. It will thus be seen that the original line to Canada has now to meet very serious competition, but the wonderful development of the Dominion affords ample scope for all the lines which are now catering for this traffic.

Of the three great railways of Canada, the Grand Trunk, the Canadian Pacific, and the Canadian Northern, the Grand Trunk is the only one which does not possess any steamships, but relies upon its special arrangements with the various steamship companies taking emigrants and traffic to the Dominion for its share of the business. No doubt when those in authority consider the time is ripe the Grand Trunk will take its place amongst the steamship companies acting as feeders to the trans-continental railways which are actively engaged in opening up the vast territories of the Dominion which they serve. Meanwhile other important agreements have been made. Working arrangements have been concluded between the Manchester Liners, Ltd., and the Northern Steamship Company, operating on Lakes Michigan, Erie, and Superior; the Island Transportation Company, working on Lake Huron, and the Richelieu and Ontario Company, trading on Lake Ontario. As a result of this combine, a through route has been established from the great Lakes to Montreal, from which point produce is transhipped to ocean liners and brought across the Atlantic to Liverpool and Manchester. The rich harvests of the great North-West district of Canada are thus brought into direct communication with the United Kingdom. A five years' contract has been concluded with the Union Steamship Company of New Zealand for a steamer service between Vancouver and Auckland, the Dominion Government agreeing to pay an annual subsidy of 180,000 dollars. This service, together with the service already being maintained by the Canadian Pacific Railway from Vancouver to Australian ports, still further unites the Dominions of Canada, Australia, and New Zealand, and links them up yet more closely with the mother country.

Allan Line

Established nearly a century ago, this line has ever been in the foremost rank as a progressive service, and claims to be the first company to use turbines as a mode of propulsion for ocean-going steamers.

Head Office and Branches:—

Liverpool. Allan Bros. & Co. (U.K.), Limited. Chief branches—Glasgow and London. Other branches in the United Kingdom at Dundee and Londonderry.

Fleet:—

The fleet of the company comprises twenty-eight vessels, aggregating 160,000 tons. The principal steamers are the following:—

Corsican (twin-screw), ...	...	11,436 tons.
Tunisian „ „ ...	...	10,576 „
Victorian (turbine triple-screw),		10,629 „
Virginian „ „ „		10,754 „
Hesperian (twin-screw),	...	9,598 „
Grampian „ „ ...	...	9,603 „

Ports of Call:—

The following services are maintained by the steamers of the company.

From Glasgow:—

1. To Quebec and Montreal weekly during the St. Lawrence season, i.e. April to October.

2. To Portland, Me., fortnightly during the winter season, i.e. November to April.

3. To St. John's, NF., Halifax, and Philadelphia, fortnightly throughout the year, the service to St. John's, NF., extending from March till December. Throughout the remainder of the year steamers proceed to Halifax and Philadelphia only.

From Liverpool (Royal Mail service):—

1. To Quebec and Montreal weekly throughout the St. Lawrence season, i.e. April to October.

2. To Halifax and St. John, N.B., weekly throughout the winter season, i.e. November to April.

3. To St. John's, NF., Halifax, and Philadelphia fortnightly throughout the year, the service to St.

John's, NF., extending from March till December. Throughout the remainder of the year steamers proceed to Halifax and Philadelphia only.

From London:—

1. To Quebec and Montreal weekly throughout the St. Lawrence season, i.e. April to October.

2. To Halifax and St. John, N.B., at regular intervals during the winter season, i.e. November to April.

From Havre:—

1. To Quebec and Montreal at least fortnightly during the St. Lawrence season, i.e. April to October.

2. To Halifax and St. John, N.B., at regular intervals throughout the winter season, i.e. November to April.

These services are run in conjunction with the services from London, i.e. their initial port of departure and final home port is London.

Length of Voyage:—

The trip to Quebec from Liverpool occupies seven days.

Embarkation:—

From Glasgow—Plantation Quay, South Side, Glasgow. From Liverpool—From the company's Landing Stage, Liverpool. From London—Varies according to the tides. Sometimes embarkation takes place at Tilbury Dock.

Connecting Services:—

The Allan Line services to Canada connect with the Canadian Pacific and Grand Trunk Railway systems.

Canadian Pacific Railway

The Canadian Pacific royal mail steamers constitute the service known as the "Empress" Line, two magnificent vessels, the *Empress of Britain* and the *Empress of Ireland*, having been added to the fleet.

Head Office and Branches:—

Montreal, Canada. London offices—Charing Cross, S.W.

Fleet:—The fleet consists of sixty-eight vessels, of which the following are the most important steamers:—

Empress of Britain	(twin-screw),		14,500	tons.
Empress of Ireland	„	„	14,500	„
Empress of China	„	„	6,000	„
Empress of India	„	„	6,000	„
Empress of Japan	„	„	6,000	„
Lake Manitoba	„	„	9,674	„
Lake Champlain	„	„	7,392	„
Lake Erie	„	„	7,550	„
Lake Michigan	„	„	9,700	„

Ports of Call:—

The Canadian Pacific Railway maintain five steamship services.

Atlantic Services.—From Liverpool, Bristol, London, and Antwerp to Quebec and Montreal in summer, calling at Rimouski to land mails. To St. John, N.B., in winter, landing mails at Halifax.

Transpacific Service.—Vancouver, Yokohama, Kobe, Nagasaki, Shanghai, Hong-Kong.

Australian Service.—Vancouver, Honolulu, Suva (Fiji), Brisbane, Sydney. Connection at Suva for Auckland, N.Z.

Great Lakes Service.—Toronto, Owen Sound, Sault Ste. Marie, Port Arthur, Fort William.

B. C. Coast Service.—Vancouver, Victoria, Seattle, Prince Rupert, Skagway, Port Simpson, Nanaimo, Comox, New Westminster, &c.

Length of Voyage:—

The voyage from Liverpool to Quebec takes about six days.

Connecting Services:—

The vessels of this company not only connect this country with every part of the Dominion by means of the great transcontinental railway, but by their other services carry passengers and goods to China and Japan and to Australian ports, connecting there with other steamship lines, returning via the Suez Canal or the Cape, thus making a tour round the world.

Cunard Line

The Cunard service to Canada makes the port of London its base and Southampton the port for embarking passengers.

Fleet:—

The vessels engaged in this service are the following:—

Ascania	(twin-screw),		10,000	tons.
Ausonia	„	„	8,000	„
Albania	„	„	8,000	„

Ports of Call:—

Montreal (summer), Portland, Me. (winter).

Other Services:—

For full particulars of the Cunard Line see under "United States Ports".

Royal Line

This service to Canada is owned by the Canadian Northern Steamships, Ltd., a branch of the Canadian Northern Railway, and was started in May, 1910, in order to meet the rapid development of the passenger and goods trade from this country. Bristol was selected as the most suitable port, and the service was commenced with two magnificent vessels, the *Royal Edward* and the *Royal George*, which hold the record for speed from this country

to Canada. The Royal Line is under contract with the British and Canadian Governments for the conveyance of mails.

Head Offices and Freight and Passenger Offices:—

London. Branch offices at Bristol, Liverpool, Birmingham, Glasgow, and Paris.

Ports of Call:—

Bristol to Quebec and Montreal (summer service). Bristol to Halifax, N.S. (winter service).

Length of Voyage:—

The voyage from port to port occupies under six days.

Embarkation:—

Passengers are conveyed by special trains from London direct to Avonmouth Docks alongside the steamer, the journey occupying two hours.

Connecting Services:—

The Royal Line is one of the connecting links between this country and the Dominion of Canada, where by means of the Canadian Northern Railway the traveller is carried to his destination.

White Star-Dominion Line

This service to Canadian ports starts from Liverpool, and is run by the White Star Line in conjunction with the Dominion Line.

Fleet:—

The vessels engaged in this service are the following:—

Laurentic	(triple-screw),	14,900 tons.
Megantic	(twin-screw),	14,900 „
Canada	„ „	10,000 „
Dominion	„ „	7,000 „

Ports of Call:—

Quebec and Montreal (summer), Halifax and Portland, Me. (winter).

Other Services:—

For full particulars of the White Star Line see under "United States Ports".

Donaldson Line

This line maintains a service for passengers and goods to Canadian ports from Glasgow under contract with the Canadian Government for the conveyance of mails.

*Head Office:—*Glasgow.

Fleet:—

The fleet consists of fourteen vessels ranging from 10,000 tons to 5600 tons. The principal steamers are:—

Athenia	(twin-screw),	10,150 tons.
Letitia	„ „	10,000 „
Cassandra	„ „	9,000 „
Saturnia	„ „	9,000 „

Ports of Call:—

Glasgow to Quebec and Montreal (summer), St. John, N.B. (winter).

Landing:—

Second-class passengers have the option of landing at Quebec or Montreal, but all third-class passengers must, according to Government regulations, land at Quebec.

Furness Line

This line maintains a service from London to Canada under contract with the Canadian Government. It also has services to United States ports and to Continental ports.

*Head Office:—*London.

Fleet:—

The fleet consists of ninety-two vessels engaged in the various services, and also in general trading in all parts of the world.

Ports of Call:—

CANADIAN SERVICES.—London to Halifax, N.S., and St. John, N.B.; London to St. John's, NF.; Liverpool to St. John's, NF., and Halifax, N.S.

UNITED STATES SERVICES.—London to Philadelphia, London and Liverpool to Newport News, Va., Norfolk, Va., Charleston, S.C., and Savannah, Ga.

CONTINENTAL SERVICES.—Bristol Channel ports to Rotterdam and Antwerp.

Cargo Services:—

All these are essentially cargo services, but the steamers to Halifax, St. John, N.B., and St. John's, NF., have accommodation for a limited number of passengers.

Manchester Liners, Limited

This company has a fleet of fourteen steamers engaged in the American trade.

*Head Offices:—*Manchester.

Ports of Call:—

The services of the line are as follows: Manchester to Quebec and Montreal weekly (summer); Manchester to Halifax, N.S., and St. John, N.B., weekly (winter); Manchester to Philadelphia fortnightly; Manchester to New Orleans; Manchester to Galveston.

Cargo Services:—

While the steamers are mainly cargo vessels, they have accommodation for a small number of saloon passengers.

AUSTRALIAN AND NEW ZEALAND PORTS

It is a far cry from the conditions prevailing in the shipping world of fifty or sixty years ago as regards the journey from this country to Australia and New Zealand to those of the present day. Passengers in those early days looked upon a voyage to Australia and New Zealand as a very serious undertaking, involving great discomfort for four or five months, and if the weather were unpropitious, even six months. Of the sailing vessels employed by the companies who were enterprising enough to undertake services to these colonies, the records of the press speak in very high terms, of excellent vessels of from 600 to 800 tons capacity. At the same time, it must be remembered that, as far back as 1868 there were fast clippers engaged in the services, which performed wonderful feats, and mention may be made of the Aberdeen vessel, *Thermopylæ*, a full-rigged clipper ship of 950 tons register, claiming to be the fastest sailing vessel ever built. On her maiden voyage to Melbourne she took only sixty days after leaving London, an unprecedented feat for those times. The introduction of steam and the opening of the Suez Canal revolutionized the service to these countries, and to-day steamers of 12,000 tons are employed which perform the voyage in about forty days.

There are now two main routes to the Dominions of Australia and New Zealand, both of which have certain advantages and both of which are used by first-class companies. The journey through the Mediterranean and the Suez Canal is the route adopted by the two premier companies carrying the royal mails to Australia—the Peninsular and Oriental Steam Navigation Company and the Orient Company—while the route via South Africa, calling at Cape Town, is still adhered to by such well-known steamship companies as the "Aberdeen" Line, the Federal-Houlder-Shire Line, the White Star Line, and the two New Zealand lines, the Shaw Savill and Albion and the New Zealand Shipping Company. The old-established line formerly known as Lund's Blue Anchor Line, but now a branch of the P. and O., also sails via the Cape, as do the vessels of the Blue Funnel Line.

A third route which attracted great popular notice is the "All Red Route". This in its essence is already carried out by the services of the Canadian Pacific Railway running from this country to Canadian ports, thence by the Transcontinental Railway to Vancouver, and from there by the Canadian-Australian Line of the same company to Australian ports. Several schemes have been brought forward for establishing a similar service between ports in Ireland to Canada and thence across the Dominion and by fast steamer again to Australia. It is anticipated that a very considerable saving of time would be effected by such a route, and if it is found practicable it may revolutionize the traffic from this country to the Dominions of Australia and New Zealand.

There is an excellent service between Australia and New Zealand ports by a number of local steamship companies. The chief is the Union Steamship Company of New Zealand, which, with its seventy steamers, not only connects with every port of New Zealand, Tasmania, Australia, and the South Sea Islands, but also runs an important service to San Francisco, connecting the Dominions with the great Continent of America.

The Aberdeen Line

This company was founded in 1825, and is the oldest shipping line trading between London, South Africa, and Australia, carrying the mails between the last two countries.

Head Office:—

Geo. Thompson & Co., Ltd., London.

Fleet:—The fleet consists of—

Demosthenes	(triple-screw steamer),		11,400	tons.
Themistocles	(twin-screw steamer),		11,400	„
Marathon	„	„	6,800	„
Miltiades	„	„	6,800	„
Salamis	(screw steamer) ...	...	4,600	„
Moravian	„ „ ...	...	4,600	„

The last two vessels carry third-class passengers only. All the steamers are fitted with Marconi wireless telegraphy and submarine signalling plant.

Ports of Call:—

The steamers sail regularly every four weeks from London (Royal Albert Docks) and Plymouth to Cape Town, passing Teneriffe *en route* and then to Australia, the ports of call being Melbourne, Sydney, and Brisbane. On the homeward journey the vessels also call at Fremantle and Durban (Natal).

Length of Voyage:—

The voyage from London to Melbourne occupies 40 days, Sydney taking an extra four days, and Brisbane, the terminal port, another week.

The Blue Funnel Line

Established for over half a century, this line, which is owned by Messrs. Alfred Holt & Co.,

Liverpool, recently entered the passenger trade to Australia via the Cape, carrying first-class passengers only.

London Agents: George Wills & Co.

Fleet:—

The Blue Funnel Line consists of sixty-five steamers, with a total tonnage of 406,934 tons. At present the following three steamers serve the Australian passenger route:—

Aeneas	10,000 tons.
Ascanius	10,000 „
Anchises	10,000 „

Every provision for the comfort and ease of the passenger is made in the superior accommodation which these steamers have.

Ports of Call:—

The steamers start from Glasgow and call at Fishguard to take up passengers, Las Palmas, Cape Town, Adelaide, Melbourne, and Sydney. On the homeward journey they call at Durban in place of Cape Town, and return to London.

Length of Voyage:—

The voyage from Glasgow to Sydney occupies 49 days, and the return journey to London 51 days.

Cargo Services:—

A weekly service of cargo steamers is maintained from Glasgow, Bristol Channel ports, and Liverpool to the Straits Settlements, China, and Japan, with a four-weekly extension across the Pacific to British Columbia and Puget Sound; a fortnightly service from Amsterdam via Liverpool to Sumatra and Java; a three-weekly service from Glasgow to Australia; and another between Singapore and West Australian ports.

Federal-Houlder-Shire Line

The services mentioned below are maintained in conjunction with the British India Steam Navigation Company by fine full-powered steamers specially constructed for the Colonial trade, and having excellent accommodation for first- and third-class passengers.

Offices:—

Houlder Bros. & Co., Ltd.; Turnbull, Martin, & Co.; Birt, Potter, & Hughes, Ltd.; and Gray, Dawes, & Co., London.

Fleet:—

The fleet consists of twenty-four vessels, of which the following are some of the finest:—

Ayrshire (twin-screw)	11,900 tons.
Dorset „	11,300 „
Everton Grange (twin-screw) ...	11,500 „
Somerset „ ...	11,300 „
Drayton Grange „ ...	10,500 „
Oswestry Grange „ ...	10,500 „

Ports of Call:—

The following are the services maintained by this line:—

Liverpool to Australia.—A regular four-weekly service, calling at Cape Town, Adelaide, Melbourne, Sydney, Newcastle, and Brisbane on the outward journey, and returning from Brisbane, Sydney, Melbourne, and Adelaide via Port Said to London, Liverpool, and Avonmouth.

Liverpool to New Zealand.—A regular four-weekly service, calling at Sydney, Auckland, Wellington, Lyttelton, Dunedin, and Bluff, returning to Avonmouth, Liverpool, and Glasgow.

London to Queensland every month, calling at Cairns, Townsville, Rockhampton, and Brisbane on the outward voyage, and returning via Colombo and Port Said to Liverpool and London.

Length of Voyage:—

Liverpool to Sydney, 51 days; Liverpool to Dunedin, 83 days; London to Brisbane, 64 days.

Milburn Line

This company maintains a service known as the "Port Line" to Australia. The steamers load regularly at Middlesbrough, Hull, and London for Adelaide, Melbourne, and Sydney, and are dispatched every three weeks. They are essentially cargo steamers, but have accommodation for a few cabin passengers.

Head Office:—Wm. Milburn & Co., London.

New Zealand Shipping Company

Incorporated in New Zealand. The Royal Mail Steamers of this company are all new vessels of the highest class, specially built for the direct service of the company between Britain and New Zealand.

Head Offices:—

London; and Christchurch, New Zealand.

Fleet:—

The fleet consists of seventeen vessels, made up of six mail steamers and eleven intermediate and cargo boats. The mail steamers are the following:—

Rotorua (triple-screw)	11,500 tons.
Remuera (twin-screw)	11,130 „
Ruahine „	10,758 „
Ruapehu „	7,885 „
Tongariro „	7,600 „
Turakina „	8,349 „

Ports of Call:—

The steamers leave London every fourth Thursday and Plymouth on the following Saturday, calling at Teneriffe, Cape Town, Hobart (Tasmania),

en route to Wellington (New Zealand); returning homeward via Cape Horn, and calling at Montevideo and Rio de Janeiro (during the season), back to Teneriffe, Plymouth, and London.

Length of Voyage:—

To Hobart (Tasmania), 40 days; to Wellington, 43 to 48 days. Return journey from New Zealand, 40 to 42 days.

Embarkation:—

Passengers have the option of joining the steamers at London or Plymouth, travelling by train from Fenchurch Street or Liverpool Street Station to Royal Albert Dock, London; or by the Great Western Railway from Paddington, or by the London and South Western Railway from Waterloo to Plymouth.

Connecting Services:—

Connection is made with the various parts of the Dominion by the services of the Union Steamship Company of New Zealand, which operate to and from all the principal ports and by the steamers of the Buddart-Parker Line.

Round the World Tours:—

The company have arrangements with the Canadian Pacific Railway, Eastern and Australian Steamship Company, China Navigation Company, Nippon Yusen Kaisha, Southern Pacific Company, Pacific Mail Steamship Company, and Toyo Kisen Kaisha, by which passengers can make a tour round the world by a number of routes.

Orient Line

Head Offices:—

London. Managers—F. Green & Co.; Anderson, Anderson, & Co.

Fleet:—

The fleet consists of—

Orama (triple-screw)	.. ...	12,500	tons.
Orvieto (twin-screw)	... ...	12,130	"
Osterley	"	12,129	"
Otranto	"	12,124	"
Otway	"	12,077	"
Orsova	"	12,036	"
Orontes	"	9,023	"
Omrah	"	8,130	"
Ophir	"	6,814	"
Ormuz	"	6,465	"

Ports of Call:—

The steamers leave London (Tilbury) every alternate Friday for Australia, calling at Gibraltar, Marseilles (for Riviera), Naples, Taranto (outward bound only), Port Said (for Cairo), Suez, Colombo, Fremantle, Adelaide, Melbourne, Sydney, Brisbane, Hobart (at certain seasons homeward bound). On the homeward journey the steamers call at Plymouth before proceeding to London.

Length of Voyage:—

The voyage between London and Sydney is made in 41 days, or in 31 days if the railway is made full use of. Travellers can join the steamers at Marseilles six days later by travelling overland from Victoria or Charing Cross (South Eastern and Chatham Railway), eight days later by travelling overland to Naples, and nine days later from Taranto.

Connecting Services:—

Passengers booked through for ports other than Fremantle, Adelaide, Melbourne, Sydney, and Brisbane, proceed by intercolonial steamer.

New Zealand Ports.—Through tickets are issued to the following ports: Bluff Harbour, Port Chalmers, Lyttelton, Wellington, Nelson, Auckland, Napier, Tarranake, Picton, Tauranga, Gisborne, and Greymouth.

P. & O. Line

The Peninsular & Oriental Steam Navigation Company was incorporated by royal charter in 1840. It carries on services to India, and the Straits, China, and Japan, in addition to the important service to Australia, which, in conjunction with the Orient Line, maintains a weekly service, carrying the mails.

Head Offices:—London.

Fleet:—

The fleet consists of sixty-two steamers, with a total tonnage of 450,896 tons, of which the principal are the following:—

Malaga (twin-screw)	... ...	12,500	tons.
Medina	"	12,500	"
Morea	"	10,898	"
Mantua	" .. .	10,885	"
Malwa	"	10,883	"
Macedonia	"	10,512	"
Marmora	"	10,508	"
Mooltan	"	9,621	"
Mongolia	"	9,505	"
Moldavia	"	9,500	"

Ports of Call:—

Australian Line.—Steamers leave London (Tilbury) every alternate Friday for Australia, calling at the following ports: Gibraltar, Marseilles, Port Said, Aden, Colombo, Fremantle, Adelaide, Melbourne, Sydney, Auckland (New Zealand, occasionally); Plymouth on the homeward journey to land passengers, connecting with the Great Western Railway, before proceeding to London. For particulars of the various other services of

the company see under "Indian Ports"; and "Straits, China, and Japan Ports".

Length of Voyage:—

The voyage from London to Sydney occupies 41 days, but can be shortened by six days by the traveller going overland to Marseilles from Victoria or Charing Cross (South Eastern and Chatham Railway), and by seven days by going overland to Brindisi, and from there by the company's connecting boats the *Isis* and *Osiris* to Port Said, where passengers join the mail steamers.

Connecting Services:—

West Australian Ports.—Arrangements have been made with the West Australian Steam Navigation Company for through bookings by their fortnightly service to the following northern ports of Western Australia via Singapore: Derby, Brooke, Cossack, Onslow, Carnarvon, Shark's Bay, and Geraldton.

New Zealand Ports.—When the P. & O. steamers do not call at Auckland, connection is made at Melbourne or Sydney with the intercolonial steamers of the Union Steamship Company of New Zealand. Passengers transfer at Melbourne for Bluff, Dunedin, Oamaru, or Timaru; and at Sydney for Auckland, Gisborne, Napier, New Plymouth, Nelson, Westport, Gretmouth, Wellington, or Lyttelton.

Tasmanian Ports.—The steamers of the Union Steamship Company of New Zealand, and of Huddart, Parker, & Co., leave Melbourne frequently for Hobart and Launceston, connecting with the P. & O. boats.

Brisbane and Queensland Ports.—Passengers proceed from Sydney in one of the local steamers.

P. & O. Branch Service

(Via the Cape.)—This line, formerly Lund's Blue Anchor Line, now forms the branch service of the Peninsular and Oriental Steam Navigation Company, with only one class of passengers. The line carries the mails between South Africa and Australia in conjunction with the Aberdeen line.

Head Office:—London.

Fleet:—

Commonwealth (twin-screw),	7,000	tons.
Geelong ,, ...	8,000	,,
Narrung	5,000	,,
Wakool	5,000	,,
Wilcannia	5,000	,,
Ballarat (twin-screw) ...	11,000	,,
Bendigo ,, ...	11,000	,,

Ports of Call:—

The steamers sail from London at regular intervals, calling at Las Palmas, Cape Town, Adelaide, Melbourne, Sydney. On the homeward voyage they call at Durban (Natal) as well.

Length of Voyage:—

London to Adelaide, 41 days; to Melbourne, 45 days, to Sydney, 49 days.

Embarkation:—

Passengers are usually embarked in the river off Tilbury, and a special train is run to convey passengers direct to the steamer.

Queensland Line

The British India Steam Navigation Company, Ltd., maintain a service, in conjunction with the Federal-Houlder-Shire Line, to Queensland via the Suez Canal for passengers and goods, under contract with the Queensland Government.

Head Office:—Gray, Dawes, & Co., London.

Ports of Call:—

Starting from London the steamers sail to Thursday Island, Cairns, Townsville, Rockhampton, and Brisbane.

Connecting Services:—

Passengers for other Australian ports proceed by the steamers of the Intercolonial service.

For further particulars of this line see under "Indian Ports".

Shaw, Savill, & Albion Company

(Via the Cape.)—For nearly sixty years the vessels of the Shaw, Savill Company have supplied communication between Great Britain and the Dominions of Australia and New Zealand. In 1883 they joined hands with the Albion Company, the result of the combination being to establish a service of two steamers monthly, one passenger, one cargo, between London and New Zealand. A service of cargo steamers from Glasgow and Liverpool to New Zealand is maintained at regular intervals. The joint company were the pioneers of the frozen-meat trade, refrigerating machinery having been fitted up in one of their sailing ships for the first time. All the steamers of the company are similarly fitted, and they are the largest carriers of frozen meat in the world, having a total carrying capacity of over 3,000,000 carcasses of mutton per annum.

Head Offices:—London.

Fleet:—

The fleet consists of sixteen first-class vessels, of which the following are the principal:—

Athenic (twin-screw)	12,234	tons.
Corinthic ,, ...	12,231	,,
Ionic ,, ...	12,232	,,
Arawa ,, ...	9,372	,,
Tainui ,, ...	9,957	,,

Ports of Call:—

The passenger steamers leave London every four weeks, calling at Plymouth, Teneriffe, Cape Town, Hobart (Tasmania), Wellington (New Zealand), returning via Montevideo, and (or) Rio de Janeiro to Teneriffe, Plymouth, and back to London.

Length of Voyage:—

London to Hobart (Tasmania), 40 days. London to New Zealand, 45 days. Return journey, New Zealand to London, 42 days.

Embarkation:—

Passengers travel by special train from Fenchurch Street Station, which conveys them to the steamers at Royal Albert Dock or Tilbury on the morning of sailing.

Connecting Services:—

Connection is made at Hobart (Tasmania) with Australian ports by means of the Intercolonial steamers which maintain regular services.

Round the World Tours:—

The company have arrangements with the—
Canadian Pacific Railway Company,
Norddeutscher Lloyd,
Southern Pacific Company,
Nippon Yusen Kaisha,
Great Northern Steamship Company of America,
whereby a tour round the world can be made by passengers by various routes.

Tyser Line

This company maintains cargo services from London (Royal Albert Dock) to Melbourne, Sydney, and to Auckland, Wellington, and Hawke's Bay.

Head Offices:—

Colonial Line, Tyser & Co., London.

White Star Line (Australian Service)

Ports of Call:—

The White Star Line maintain four services to Australian and New Zealand ports, two carrying passengers and goods, and two cargo only. The New Zealand services are run in conjunction with the Shaw, Savill, and Albion Line.

1. Liverpool to Australia, calling at Cape Town, Albany, Adelaide, or Melbourne and Sydney.
2. Liverpool to Australia direct (cargo only).
3. London to New Zealand, calling at Plymouth, Teneriffe, Cape Town, Hobart, and New Zealand ports.
4. Liverpool to New Zealand (cargo only).

For further particulars of this line see under "United States Ports".

North German Lloyd Steamship Company (Australian Service)

Ports of Call:—

The steamers of the company sail from Bremen via Southampton every 28 days, to Fremantle, Adelaide, Melbourne, and Sydney, calling at Algiers, Genoa, Naples, Port Said, Suez, Aden, and Colombo.

Connecting Services:—

In connection with this service their Austral-Japan Line is maintained, the steamers leaving Sydney monthly and calling at Brisbane, Raboul, Friedrich-Wilhelmshafen (New Guinea), Jap, Angaur, Manila, Hong-Kong, Kobe, and Yokohama.

For full particulars of this company see under "United States Ports".

Messageries Maritimes

The first steamer to Australia and New Caledonia belonging to this company was dispatched in 1882.

Head Offices:—

Paris, Marseilles, Bordeaux, London.

Fleet:—

The principal vessels engaged in this service are the following:—

Australian	... ...	6365 tons.
Ville de la Coitat	...	6378 „
Dumbea ...	... ...	5685 „
Nera ...	... ...	5538 „

Ports of Call:—

From Marselles every four weeks to Port Said, Suez, Aden, Bombay, Colombo, Fremantle, Adelaide, Melbourne, Sydney, and Noumea. There are also branch lines from Sydney to Noumea and Noumea to the New Hebrides.

For particulars of other services see under "South American Ports", "Straits, China and Japan Ports", and "African Ports".

The following lines connect Australia and New Zealand with Canada and the Far East: The Canadian Pacific Railway; Messrs. A. Currie & Co., whose headquarters are at Melbourne, connecting not only the Straits, but also India and South Africa with Australian ports; the Eastern and Australian Steamship Company, whose headquarters are in London but whose services start from Melbourne, running to China and Japan; and the Australian line of the Nippon Yusen Kaisha also connecting with the Far East.

Canadian Pacific Railway (Australian Service)

Ports of Call:—

In conjunction with their services between Britain and Canada, the Canadian Pacific Railway maintains a service from Vancouver to Australian ports, calling at Honolulu, Suva (Fiji), Brisbane, and Sydney. There is also a connection at Suva for Auckland, N.Z.

For full particulars of this line see under "Canadian Ports".

A. Currie & Co.'s Line

This company maintains regular services from Australian ports to the Straits, India, and South Africa.

Head Office:—Melbourne.

Fleet:—

The steamers of this line are—

Darius	... ...	3395 tons.
Euryalus	... ...	3570 „
Gracchus	... ...	3750 „
Hymetus	... ...	4606 „
Itonus	... ...	5340 „
Janus	... ...	4824 „

Ports of Call:—

Australian ports to Java and Singapore; to Colombo, Madras, and Calcutta; also to South African ports.

Eastern and Australian Steamship Company

This company maintains a mail and passenger service between Australia, China, and Japan.

Head Office:—

22 Bishopsgate Street, London, E.C.

Fleet:—

Empire	... ...	4500 tons.
St. Albans	... ...	4500 „
Eastern	... ...	3600 „
Aldenham	... ...	4000 „

Ports of Call:—

Melbourne to Kobe, calling at Geelong, Sydney, Brisbane, Port Darwin, Dilly, Timor, Manila, Hong-Kong, Shanghai, Moji.

Nippon Yusen Kaisha (Australian Line)

Ports of Call:—

The steamers of the "Nippon" line on this service connect at Yokohama with the *European Line* and run every month to Melbourne, calling at Kobe, Moji, Nagasaki, Hong-Kong, Manila, Thursday Island, Townsville, Brisbane, and Sydney.

For further particulars of this line see under "Straits, China, and Japan Ports".

Union Steamship Company of New Zealand

This company maintains a number of services between the principal New Zealand ports, and also to Australian ports and to Tasmania.

Head Office:—

Dunedin, New Zealand. London Office, 34 Leadenhall Street.

Fleet:—

The fleet consists of 64 vessels, with a total tonnage of 159,000 tons.

The principal steamers are as follows:—

Makura	(twin-screw)	8075 tons.
Marama	„	6437 „
Aparima	„	5704 „
Maitemata	„	5432 „
Matena	„	5282 „

Ports of Call:—

Intercolonial and Coastal Services.—Steamers run between Melbourne, Hobart, Bluff, Dunedin, Lyttelton, Wellington, Napier, Gisborne, Auckland, and Sydney, and vice versa. The following local services are also run: Wellington—Lyttelton service. Wellington—Picton-Nelson service. Wellington—New Plymouth—Onehunga service. Wellington—Westport—Greymouth service.

Coastal Services for cargo only between Bluff and Greymouth, calling at intermediate ports.

South Sea Islands Services, starting from Auckland and finishing at Sydney, and vice versa.

Tasmanian Services.—There are also a number of services between New Zealand ports, Australian ports, and Tasmanian ports.

New Zealand, San Francisco Royal Mail Service.—A connecting steamer runs from Sydney to Wellington, and from this port the service calls at Auckland, Rarotonga (Cook Islands), and Papute (Society Islands), and San Francisco.

In addition to the local services already mentioned there are the following companies:—

Adelaide Steamship Company

This company has thirty-six vessels ranging up to 4600 tons, which maintain regular sailings from Adelaide, Sydney, and Melbourne to Albany and

Fremantle; also from Adelaide to Melbourne, Sydney, Newcastle, Brisbane, Maryborough, Rockhampton, Mackay, Townsville, and Cairns; and a third service to Spencer's Gulf, calling at all the principal ports.

Australasian United Steam Navigation Company, Ltd.

The headquarters of this company are at Brisbane. This company maintains services from Melbourne to Sydney, Brisbane, Rockhampton, Mackay, Bowen, Townsville, and Cairns; from Brisbane to Gladstone, Mackay, Bowen, and Townsville; from Brisbane to Thursday Island, Normanton, and Burketown; from Sydney to Melbourne, Adelaide, Albany, Fremantle, and from Sydney to Suva and Levuka (Fiji).

Howard Smith Company, Ltd.

Head Office:—Melbourne. This line maintains regular steamship routes between Queensland, New South Wales, Victoria, South Australia, and West Australia.

Huddart, Parker, & Co.

Head Office:—Melbourne. The steamers of this line maintain services to Hobart (Tasmania) and all New Zealand ports and Sydney.

Melbourne Steamship Company, Ltd.

Head Office:—Melbourne. This company maintains regular fortnightly services from Newcastle and Sydney to Melbourne, Adelaide, Albany, and Fremantle; from Melbourne to Tasmanian ports, Eden and Sydney, and between local coast ports of Western Australia.

Illawarra and South Coast Steam Navigation Company, Ltd.

Head Office:—Sydney. The steamers of this company maintain services to Wollongong, Kiama, Shellharbour, Berry, Shoalhaven River, Nowra, Ulladulla, Bateman's Bay, Clyde River, Nelligen, Bermagui, Tathra, Merimbula, Eden, Narooma, and Wagonga.

Newcastle and Hunter River Steamship Company, Ltd.

Head Offices:—Sydney. The steamers of this company maintain a regular service from Sydney to Newcastle and Morpeth; also between Sydney, Newcastle, and Port Stephens.

UNITED STATES PORTS

In considering the steamship services to United States ports attention is at once focused upon the gigantic vessels running between European ports and New York. This has been especially the case since the launching of the Cunard leviathans, the *Lusitania* and the *Mauretania*, each of 32,000 tons register, the advent of which placed the blue ribbon of the Atlantic in the hands of the Cunard Company. The construction of these two vessels may be regarded as the outcome of the great American shipping deal which resulted in the White Star Line and a number of important, although lesser companies, being purchased by the International Mercantile Marine. As an answer to this move the Cunard Company, with the assistance of the British Government, built the two enormous ocean liners. Since that time every effort has been strained by rival lines to go one better, with the result that the White Star Line constructed the two still larger vessels, the *Olympic* and the *Titanic*, the latter of which was sunk on her maiden voyage.

It would be premature to suppose that finality has been reached as far as size is concerned, but there seems to be a general agreement that as far as speed is concerned the additional cost incurred in increasing the number of knots per hour is so great as to make further advance impracticable. The new vessels of the White Star Line are content to take second place to the giant Cunarders, and the Hamburg-American line will also not attempt to wrest this record from the British line.

Attention has also been drawn to proposals for shortening the journey, not by increasing the speed, but by running a service from the nearest points on each side, by which means it is hoped to make the journey between Liverpool and New York with only three nights at sea. In addition to the three lines already mentioned we have sailing from this country the American Line both from Liverpool and Southampton, the Atlantic Transport Company, starting from London, and the Anchor Line running from Glasgow. On the Continent, in addition to the Hamburg-American Line, there is the North German Lloyd Line, the Holland - America Line, starting their services from Bremen and Rotterdam respectively, the Red Star Line sailing from Antwerp and calling

at Dover, the Compagnie Générale Transatlantique from Havre, the Fabre Line from Marseilles, and the Austro-Americana from Trieste.

Although the service to New York holds first place, included under the heading of "United States Ports" are services to Philadelphia and Boston, and also to ports in the Gulf of Mexico, besides other ports.

Allan Line (Services to United States Ports)

This line maintains services from Glasgow and Liverpool to Philadelphia; and from Glasgow to Boston, steamers sailing every fortnight.

For full particulars of this company see under "Canadian Ports".

Atlantic Transport Company, Ltd.

This line maintains special services between Britain and the United States. Steamers, carrying first-class passengers only, sail every week from London.

Offices:—London.

Fleet:—

The fleet of this line contains, among other ships, the following fine steamers:—

Minnewaska (new steamer) ...	14,220 tons.
Minneapolis	13,401 „
Minnehaha	13,403 „
Minnetonka	13,398 „
Mesaba	6,833 „

These are all used in the London-New York service, and are supplemented by several others for other routes.

Ports of Call:—

The three principal services are: London to New York (direct), London to Philadelphia (direct), London to Baltimore (via Antwerp). The company also runs steamers from Swansea to Philadelphia and Baltimore.

Embarkation:—

Passengers from London embark at the Tilbury Docks, and a special train is run from St. Pancras Station to the ship's side. For the convenience of passengers holding Atlantic Transport Line return tickets, and wishing to avail themselves of other routes, arrangements have been made with the following lines to accept the voucher for return passage subject to the terms of the printed endorsement attached to such return tickets: The American Line, the Austro-Americano Line, Compagnie Générale Transatlantique, Cunard Line, the Dominion Line, the Hamburg-American Line, the Holland-American Line, the Leyland Line, the North German Lloyd Line, the Red Star Line, the White Star Line.

American Line

The steamers of this line, now part of the International Mercantile Marine Company, connect with the Pennsylvania Railroad, which is the most direct and the shortest route to the west and south-west of the United States.

Offices:—

The principal offices of the line in this country are as follows: London, Liverpool, and Southampton.

Fleet:—

The fleet of the Liverpool-Philadelphia service is comprised of—

Haverford (twin-screw) ...	11,635 tons.
Merion „	11,635 „
Dominion „	7,008 „
Friesland „	7,110 „

The Southampton-New York service is maintained by the following steamers:—

St. Louis (twin-screw) ...	11,629 tons.
Philadelphia „	10,800 „
St. Paul „	11,629 „
New York „	10,800 „

Ports of Call:—

Steamers leave Liverpool every other week on Wednesday for Philadelphia, calling at Queenstown, and taking passengers for New York and Boston. The vessels in the Southampton service start every Saturday, calling at Cherbourg *en route* to New York, and at Cherbourg and Plymouth on the homeward journey, landing passengers and mails at the latter port.

Embarkation:—

The Liverpool-Philadelphia service carries second- and third-class passengers only, and railway tickets to Liverpool are issued at reduced rates from most parts of Britain.

Southampton-New York Service.—Special trains leave Waterloo Station, London.

Anchor Line

The principal services of this line are between Glasgow and New York (weekly), Glasgow and Liverpool to Bombay (fortnightly), and Glasgow and Liverpool to Calcutta (fortnightly).

Offices:—

Glasgow, Liverpool, London, Manchester, Dundee, Londonderry, and Gibraltar.

Fleet:—

The fleet comprises twenty-two steamers, of which the biggest are—

Cameronia	10,000	tons.
Caledonia	9,222	„
California	8,662	„
Columbia	8,292	„
Anchoria	6,000	„
Media	6,000	„

Ports of Call:—

The three principal services are as follows: *Glasgow to New York*, every week, via Londonderry and Moville; *Glasgow and Liverpool to Bombay* fortnightly, calling on the outward voyage at Gibraltar, Port Said, and Suez to land passengers for Egypt, and on the homeward journey at *Port Said* and *Suez Canal*, Marseilles, and Gibraltar to Liverpool and Glasgow; and *Liverpool to Calcutta* fortnightly, calling at Port Said and Suez outward, and at Colombo, Port Said, Suez, Genoa, Leghorn, and Gibraltar for London.

Opportunities for holiday trips are also offered by steamers of this line by proceeding to Gibraltar for the south of Spain and Morocco by the Bombay boats on their outward journey.

Length of Voyage:—

From Moville to New York, between 6 and 7 days; Liverpool to Bombay, about 22 days; Liverpool to Calcutta, about 31 days.

Embarkation:—

For most of the steamers to New York it is necessary that passengers should join them at Greenock by train from St. Enoch Station, Glasgow. A few passengers may embark at Anchor Line Berth, Yorkhill Quay, Glasgow.

For Bombay and Calcutta passengers embark at the Anchor Line Berth, Vittoria Wharf, East Float, Birkenhead; or from the Princes Landing Stage, Liverpool.

Cunard Line

Offices:—Liverpool and London.

Fleet:—

The fleet of the company consists of the following, amongst other steamers, totalling for all the services of the line twenty-five vessels:—

Lusitania } quadruple-screw	32,000	tons.
Mauretania } turbine steamers	32,000	„
Franconia (twin-screw) ...	18,000	„
Laconia „ ...	18,000	„
Caronia „ ...	20,000	„
Carmania (triple-screw) ...	20,000	„
Campania (twin-screw) ...	12,950	„

Ports of Call:—

There are four chief passenger services:—

Liverpool to New York every week, calling at Queenstown, and at Fishguard on the homeward voyage to enable passengers for London to shorten the journey by several hours. *Liverpool to Boston* via Queenstown every month. *The Hungarian-American Service* as follows: New York, Gibraltar, Genoa, Naples, Trieste, Fiume, Palermo, and back to New York via Naples and Gibraltar; also Liverpool to Fiume, Palermo, Naples, Gibraltar to New York. These routes are varied sometimes when Madeira and Algiers are included as ports of call.

Canadian Service. See under "Canadian Ports".

Length of Voyage:—

This company holds the record for the passage from Liverpool to New York and vice versa, only 5 days being occupied for this voyage by their steamers *Lusitania* and *Mauretania*. On the Hungarian-American Line the times are: New York to Trieste, 17 days; and from Fiume back to New York in about 20 days. Liverpool to Fiume in 10 days, and Fiume to New York in 20 days.

Embarkation:—

Passengers for New York embark at the Cunard Company's landing stage from Liverpool.

Connecting Services:—

For the convenience of their passengers the Cunard Company have made special arrangements whereby in connection with their services through bookings may be made from and to almost every part of the world.

Cargo Services:—

The company has also purely cargo services running from Liverpool and Swansea to Leixoes, Lisbon, Gibraltar, Genoa, Leghorn, Naples, Brindisi, Bari, Ancona, Venice, and Fiume; and to Leixoes, Lisbon, Gibraltar, Genoa, Leghorn, Naples, Palermo, Messina, Catania, Brindisi, Venice, Trieste, and Fiume. From Liverpool and Manchester to Gibraltar, Malta, Corfu, Patras, Syra, Smyrna, Constantinople, and Odessa. From Liverpool to Havre every week and vice versa.

Furness Line (United States Services)

This line maintains a service from London to Philadelphia and from London and Liverpool to Newport News, Va., Norfolk, Va., Charleston, S.C., and Savannah, Ga.

For other particulars of this company see under "Canadian Ports".

Gulf Transport Line

This line maintains a direct regular service from Liverpool to Galveston.

Head Offices:—

J. H. Welsford & Co., Ltd., Liverpool.

Leyland Line

The steamers of this line have been specially built for the Transatlantic trade, and carry only one class of passengers.

Head Offices:—

Frederick Leyland & Co., Ltd., Liverpool and London.

Fleet:—

The fleet consists of forty-one vessels, ranging from 3000 to 10,000 tons. The following are the most important:—

Devonian	10,418 tons.
Winifredian ...	10,405 „
Bohemian	10,300 „
Atlantian	9,399 „
Canadian	9,301 „
Indian	9,121 „

Ports of Call:—

Liverpool to Boston every Saturday; to New Orleans every four weeks; to St. Thomas monthly; twice a month to Puerto, Colombia, Colon, and Kingston (Jamaica); every three weeks to Tampico, Vera Cruz, and Progreso; twice a month to Barbados, Trinidad, La Guayra, Puerto Cabello, Curaçao, and Cartagena.

Manchester Liners, Ltd.

The services to United States ports are as follows: Manchester to Philadelphia, to New Orleans, and to Galveston.

For other particulars of this company see under "Canadian Ports".

White Star Line

The flag of the original line of the White Star Australian clippers was taken over in 1867 by the late Mr. T. H. Ismay, and ever since then the progress of the company has been continuous and steady.

Offices:—

Ismay, Imrie, & Co., Liverpool, London, Southampton, Plymouth, &c.

Fleet:—

The fleet of the company comprises thirty-one steamers, including the finest and largest steamer in the world, viz.:

Olympic (triple-screw) ... 45,000 tons.

Other steamers include—

Baltic (twin-screw) ...	23,876 tons.
Adriatic „ ...	24,540 „
Laurentic (triple-screw)	14,892 „
Megantic (twin-screw) ...	14,878 „

Ports of Call:—

The company maintains eight services, which are as follows:—

American Services.—From Southampton, via Cherbourg and Queenstown, to New York, sailing every Wednesday. *From Liverpool,* via Queenstown, to New York, sailing every Saturday. *From Liverpool,* via Queenstown, to Boston, sailing on Tuesdays, two, three, and sometimes four times a month. *From New York and Boston* for the Mediterranean, calling at Azores (Ponta Delgada), Madeira, Gibraltar, Algiers, Naples, Genoa, and Alexandria. Sailings twice a month.

Canadian Service.—From Liverpool to Quebec and Montreal for the summer, sailing every Saturday from the end of April to the first week of November. *From Liverpool* to Halifax and Portland for the winter service.

Australian Service.—From Liverpool, via Cape Town, to Australian ports every four weeks.

New Zealand Service.—From London to New Zealand, calling at Plymouth, Teneriffe, Cape Town, and Hobart *en route.* This service is run in conjunction with the Shaw, Savill, and Albion Company, Ltd.

Cargo Services:—

In addition to the services enumerated above, the company runs three purely cargo services as follows: Liverpool to New York (direct), Liverpool to Australia (direct), and Liverpool to New Zealand (direct).

Austro-Americana Steamship Company, Ltd., of Trieste

This company caters for saloon passengers on its services, in large twin-screw boats of recent construction.

Head Office:—

Trieste. London Agents—Thos. Cook & Son, Andrew Weir & Co.

Fleet:—

This company owns over thirty large newly constructed transatlantic steamers with which to carry out its services, which include—

Kaiser Franz Josef ...	16,500 tons.
Martha Washington ...	14,500 „
Laura	10,500 „
Alice	10,500 „

Ports of Call:—

The following are the regular services of the company:—

Trieste to New York.—Leaving every Saturday from Trieste, calling at Patras and Palermo, Algiers and Almeria; and from New York on the same day, calling at Horta or Ponta Delgada,

Gibraltar, Naples, Patras, and Venice. *Trieste to Buenos Ayres.*—Every three weeks from Trieste, calling at Almeria and Las Palmas, Rio de Janeiro, Santos, and Montevideo; and returning via Montevideo, Santos, Rio de Janeiro, Las Palmas, Cadiz, and Naples.

Length of Voyage:—

The time occupied in the Trieste-New York trip is between 12 and 13 days. From Trieste to Buenos Ayres about 27 days.

Embarkation:—

Passengers from Trieste embark at Free Harbour, Molo No. 4 (five minutes from the Südbahn Railway Station; from New York at New Pier, No. 1, Bush Docks, foot of 50th Street, South Brooklyn.

Cargo Services:—

Trieste to New York, via Greece and Italy, every month; Trieste to Philadelphia, via Greece and Italy, twice a month; Trieste to New Orleans, via Italy, once a month; Savannah to Trieste, via Spain and Italy, twice a month; Pensacola to Trieste, via Italy, once a month; New Orleans to Trieste, via Spain, France, Italy, twice a month; Galveston to Trieste, via Spain and Italy, every three weeks; to Marsiglia, Pointe-à-Pitre, Fort de France, and vice versa.

Compagnie Générale Transatlantique

Various services are maintained by this company from its chief ports, Havre, St. Nazaire, and Marseilles, the two principal being to New York and to the Mediterranean.

Offices:—

Paris, Havre, and Marseilles. Agencies in London for passengers, and offices throughout the world.

Fleet:—

The company owns a fine fleet of seventy-eight steamers. The following are some of the largest in active service:—

La France	27,000 tons.
La Provence	19,189 „
La Savoie	15,410 „
La Lorraine	15,410 „
Espagne	12,400 „
La Touraine	12,360 „

Ports of Call:—

Havre to New York every Saturday by the large mail steamers, and also by the smaller boats, which only take passengers for second and third class. These steamers, on the return voyage, leave New York every Thursday.

Saint Nazaire to Vera Cruz every month, calling at Santander, Corunna, Havana.

Saint Nazaire to Colon every month, calling at Pointe-à-Pitre, Basse Terre, Fort-de-France, La Guayra, Puerto Cabella, Puerto Colombia, and Cartagena.

Havre and Bordeaux every month to Colon, via Santander, Pointe-à-Pitre, Basse Terre, Fort-de-France, Trinidad, Carupano, La Guayra, and Puerto Colombia.

Havre and Bordeaux every month to Port-au-Prince, calling at Corunna, St. Thomas, Porto Rico, Porto Plata, and Cap Haitien.

On the Mediterranean Service the following details may be given: Sailing from Marseilles to Algiers and Bougie direct, or to Algiers, via Bougie, and back again; Marseilles to Tunis and Algiers, calling at Bizerta, Tabarka, La Calle, Bone, Philippeville, Collo, Djidjelli, and Bougie; Marseilles direct to Philippeville and Bone; Marseilles to Oran and Carthagene; Marseilles to Tunis and Malta and back; Marseilles to Sousse, via Bizerta, Tunis, and Sfax, and back to Marseilles.

Length of Voyage:—

The time occupied in the voyage from Havre to New York is 6 to 7 days; from St. Nazaire to Vera Cruz, 16 days; to Colon, 20 days; Havre to Colon, 23 days; to Port-au-Prince, 24 days.

Fabre Steamship Company

This company commenced by establishing services in the Mediterranean and elsewhere. From time to time it has proved its progressive nature by placing more up-to-date steamers of greater speed on its services.

Head Office:—Cyp. Fabre & Co., Marseilles.

New York Agency, J. W. Elwell & Co.

Fleet:—

The company possess a fleet of seventeen vessels. The following steamships take first- and third-class passengers, and are the biggest of the fleet:—

Saint Anna	14,000 tons.
Roma	9,000 „
Germania	9,000 „
Madonna	10,000 „
Venezia	11,000 „
Canada	14,000 „

Ports of Call:—

New York Services.—Starting from Marseilles, the steamers sail via Naples to New York. The company hold the contract for the direct trans atlantic service, which connects Marseilles, Lisbon the Azores, and New York. Vessels sail from Lisbon and New York approximately every three weeks, and the steamers carry the mails and first-, second-, and third-class passengers. The voyage

occupies eight days, and offers the advantage of a short crossing by the South Atlantic route.

Cargo Services:—

Other steamers of the company maintain an important cargo service between various *Mediterranean Ports and New York* (third-class passengers being carried on this route).

West Coast of Africa Service.—A service is also maintained between Marseilles and Las Palmas, Conakry, Grand Bassam, Cotonou, and intermediate ports, the vessels sailing on the 25th of each month.

Mediterranean Service.—Steamers all sail from *Marseilles to Alexandria*, Tunis, and Barcelona every fortnight.

Hamburg-American Line

The services of this company embrace almost the entire globe, the chief service, however, being between Hamburg and New York.

Offices:—

Hamburg and London, and Shaw, Adams, & Co., London; and agencies in all parts of the world.

Fleet:—

The company owns a fleet of 385 vessels (of which 174 are large ocean steamers), registering 1,000,094 tons. Amongst these are the following:—

Kaiserin Auguste Victoria (twin-screw)	24,580 tons.
Amerika	22,625 „
Cleveland	17,000 „
Cincinnati	17,000 „
Blucher	12,334 „
Moltke	12,334 „

Ports of Call:—

The services maintained by this line are as follows:—

New York Service.—From Hamburg to New York, via Southampton and Cherbourg. An intermediate service is run to New York from Hamburg, calling at Boulogne-sur-Mer and Southampton.

Philadelphia Service.—From Hamburg direct Philadelphia.

West Indies Service. See particulars under this heading.

African Services.—From Hamburg to West Africa. This is a joint service with the Woermann Line. Hamburg to South and East Africa. This service is run in conjunction with the Deutsche Ost-Afrika Line. See particulars under "African Ports".

Atlas Service.—New York to West Indies, Colombia, and Central America.

South American Services.—Joint services are maintained with the Hamburg South American Line to Brazilian and River Plate ports. For particulars see under "South American Ports".

New York to Brazil.—There is also a service from New York to Brazilian ports.

Arabian-Persian Service.—There are also frequent sailings from Hamburg, via Antwerp and Marseilles, to Persian Gulf ports.

Imperial German Mail Steamer Line.—This line runs from Shanghai to Tongku-Tientsin (or Dalny) via Tsingtau and Chefoo.

Embarkation:—

Passengers from London are conveyed by train to Southampton from Waterloo Station, and the train goes direct to Southampton Docks alongside the tender.

Holland-America Line

A regular weekly service to New York is maintained by large twin-screw steamers.

Offices:—Rotterdam and London.

Fleet:—

The passenger fleet consists of the following steamers, all fitted with the Marconi system of wireless telegraphy and the submarine signal receiving apparatus:—

Rotterdam (twin-screw)	...	24,170 tons.
Nieuw Amsterdam (twin-screw)		17,250 „
Noordam	„	12,531 „
Ryndam	„	12,531 „
Potsdam	„	12,606 „

Ports of Call:—

From Rotterdam to New York, calling at Boulogne-sur-Mer both outward and homeward. In the case of the two largest steamers, a call at Plymouth is made before reaching Boulogne on the homeward voyage.

Cargo Services:—

There are also fortnightly services between Rotterdam and Boston, Philadelphia, Baltimore, Newport News, and a monthly service between Rotterdam and Savannah.

North German Lloyd Steamship Company

This line is responsible for some of the most important services in the shipping world, carrying the Imperial German mails.

Offices:—Bremen and London and agencies.

Fleet:—

Excluding steamers maintaining the smaller services, the company owns eighty-four vessels of varying size and power. The following are among the best steamers:—

George Washington	25,570 tons.
Kronprinzessin Cecilie ...	19,503 „
Kaiser Wilhelm II	19,361 „
Kronprinz Wilhelm	14,908 „
Kaiser Wilhelm der Grosse . .	14,349 „
Prinz Friedrich Wilhelm ...	17,082 „
Berlin	17,324 „

Ports of Call:—

The three chief services of this company are as follows:—

New York Service.—From Bremerhaven, via Southampton and Cherbourg, to New York, and return via Plymouth and Cherbourg (every week). Extra service: from Bremen direct, calling at either Southampton and Cherbourg or Boulogne during the season.

Australian Service.—From Bremerhaven, via Southampton, to Fremantle, Adelaide, Melbourne and Sydney, calling at Algiers, Genoa, Naples, Port Said, Suez, Aden, and Colombo every twenty-eight days.

Straits, China, and Japan Services.—Sailings every fortnight, alternately from Bremerhaven and Hamburg, steamers leaving Bremerhaven on Wednesday and Hamburg on Thursday, via Antwerp, Southampton, Gibraltar, Algiers, Genoa, Naples, Port Said, Suez, Aden, Colombo, Penang, Singapore, to Hong-Kong, Shanghai, Tsingtau or Nagasaki, Hiogo, and Yokohama. The steamers sailing from Bremerhaven also call at Rotterdam.

Various other services are maintained, including the following:—

Mediterranean-New York Services.—Genoa to New York, via Naples, Palermo, Algiers (winter only), and Gibraltar, omitting Palermo on the homeward journey.

Marseilles to Alexandria direct, via Naples, and vice versa.

Genoa to Alexandria, via Biserta (Tunis), and Syracuse.

Marseilles to Batoum or Nicolaieff, calling at Genoa, Naples, Catania, Piraeus, Smyrna, Constantinople, and Odessa.

Other services are: Bremerhaven to Baltimore, frequent service; to Galveston, monthly; to Havana, Manzanillo, and Cienfuegos, via Antwerp.

Brazilian Service.—Bremerhaven to Pernambuco, Bahia, Rio de Janeiro, and Santos, via Antwerp, Leixoes (Oporto), Lisbon, and Madeira.

River Plate Service.—Bremerhaven to Montevideo and Buenos Ayres, via Antwerp, Corunna, Villagarcia, and Vigo and Teneriffe.

Length of Voyage:—

The voyage to New York occupies about 5 to 6 days; to Australia (Sydney) from Bremerhaven, 51 days; to Yokohama from Bremerhaven, 54 days; to Colombo from Bremerhaven, 30 to 32 days.

Embarkation:—

Passengers usually leave Bremen for Bremerhaven on the eve of sailing. Passengers embarking at Southampton travel by rail from London by London and South Western Railway.

Connecting Services:—

This company has an arrangement with the City and Hall Lines of the Ellermans Lines, whereby passengers can tranship from the N.D.L. steamers at Port Said and proceed to Bombay, Karachi, Colombo, Madras, and Calcutta by steamers of these lines, also an arrangement with the Khedivial Mail Line so that passengers may proceed by steamers of this line to Palestine, Syria, Turkey, and the Red Sea ports.

Straits, China, and Japan.—At Penang connection is made with the local N.D.L. service to Belawan (Deli), Sumatra, and with the British India Company's service to Rangoon.

At Singapore connection is made with the local N.D.L. service to Sumatra (Belawan Asahan), Bangkok, Hong-Kong via Bangkok, North Borneo (Labuan, Jesselton, Kudat, Sandakan, Lahad-Datu), Celebes, Molukken (Makassar, Menafo, Sangir Islands, Ternate, Goronatalo), Sulu, Zamboanga; and with the N.D.L. service and the Koninklijke Packetvaart Company's service to Batavia, Samarang, Soerabaya. At Singapore connection is made with the steamers to Batavia, Makassar, Amboina, Banda, Eitape-Reede, Potsdamhafen, Friedrich Wilhelmshafen, Erimahafen (Stephansort), Finschhafen, Rabaul, by the company's steamer *Manila*.

At Hong-Kong connection is made with the steamers to Manila, Yap (for mails and passengers only), New Guinea, Queensland, Sydney, and Melbourne by the company's Imperial Mail steamers *Prinz Waldemar*, *Prinz Sigismund*, and *Coblenz*.

At Shanghai connection is made with the Yangtse ports (Chinkiang, Nanking, Wuhu, Kiukiang, Hankow), and with Tsingtau, Chefoo, and Tientsin.

Austral-Japan Service.—Connecting with the Australian service is the Austral-Japan Line, leaving Sydney monthly, and calling at Brisbane, Rabaul, Friedrich Wilhelmshafen (New Guinea), Yap, Angaur, Manila, Hong-Kong, Kobe, and Yokohama.

Red Star Line

This line runs regular services by first-class twin-screw steamers from Antwerp to the United States, calling at Dover *en route*.

Offices:—

Antwerp and London; and Messrs. Geo. Hammond & Co., Dover.

Fleet:—

Among the steamers owned by this line are the following:—

Lapland (twin-screw)	...	18,694 tons.
Finland ,,	...	12,185 ,,
Kroonland ,,	...	12,185 ,,
Vaderland ,,	...	12,017 ,,
Zeeland ,,	...	11,904 ,,

Ports of Call:—

The services maintained by this company are from Antwerp and Dover to New York, Antwerp to Boston and Philadelphia, and Antwerp to Baltimore.

Length of Voyage:—

The time occupied by the voyage from Antwerp, via Dover, to New York is about 9 days, Antwerp to Boston about 11 days, Antwerp to Philadelphia about 17 days.

Embarkation:—

Passengers embark from the Quai du Rhin, Antwerp; Prince of Wales Pier, Dover; and Pier 59, North River, New York City. Passengers may take any scheduled train from London to Dover arriving in Dover before the steamer's advertised sailing hour from that port.

Italia Steam Navigation Company (Royal Italian Mail Service)

This company maintains a fortnightly service between Genoa and the United States, calling at Naples, New York, and Philadelphia.

For further particulars see "South American Ports".

La Veloce

This company maintains a fortnightly service from Genoa to New York, calling at Palermo and Naples.

For further particulars see "South American Ports".

Lloyd Sabaudo

This company maintains a service from Genoa to New York, calling at Naples or Palermo.

For further particulars see "South American Ports".

CENTRAL AMERICAN AND WEST INDIAN PORTS

It has been thought advisable to group together the lines trading to Central American ports with those maintaining services to the West Indies, and in Central America Mexico has also been included. The development of the West Indian trade, and particularly the banana traffic, has largely resulted from the enterprise and untiring energy of the late Sir Alfred Jones, of Messrs. Elder, Dempster, & Co. The Imperial Direct West India Mail Service which he inaugurated was run by the help of a subsidy from the British Government, and from Jamaica, and the steamers employed in this service brought to this country enormous quantities of bananas. Unfortunately, owing to a difficulty over the respective contributions from the Government and from Jamaica, this service had to be discontinued.

The Direct Line of steamers trading to the West Indies was acquired by the Royal Mail Steam Packet Company, and maintains services from London and from Glasgow to West Indian ports. Messrs. Elders & Fyffes, who are engaged in the banana trade, have a service to Costa Rica, Jamaica, and Colombia.

The Tehuantepec National Railway forms an important link between the Atlantic and the Pacific, crossing the isthmus and having two terminal ports, viz. Salina Cruz on the Pacific side and Puerto Mexico (Coatzacoalcos) on the Atlantic side. An increasing number of steamship companies use these ports on their services, and by utilizing these lines and the railway a practically straight course can be made from this country to Australia and New Zealand.

Compagnie Générale Transatlantique (West Indies and Central American Services)

This company maintains services from St. Nazaire to Vera Cruz every month, calling at Santander, Corunna, Havana; St. Nazaire to Colon every month, calling at Pointe-à-Pitre, Basse Terre, Fort-de-France, La Guayra, Puerto Cabello, Puerto Colombia, and Cartagena; Havre and Bordeaux every month to Colon via Santander, Pointe-à-Pitre, Basse Terre, Fort-de-France, Trinidad, Carupano, La Guayra, and Puerto Colombia; and from Havre and Bordeaux every month to Port-au-Prince, calling at Corunna, St. Thomas, Porto Rico, Porto Plata, and Cap Haitien.

For further particulars of this company see under "United States Ports".

Compania Trasatlantica de Barcelona

This company has a service of steamers from Barcelona and Cadiz, calling at Las Palmas and Teneriffe for Santa Cruz, San Juan, Havana, Port Limon, Colon, Sabanilla, Curaçao, Porto Cabello, and La Guayra, also from Spain to New York, Havana, and Vera Cruz.

For further particulars see under "Straits, China, and Japan Ports".

Cuban Line

The steamships of this line carry passengers and freight from England to Cuba.

Head Office:—Ernest Bigland & Co., London.

Fleet:—

Among the steamers engaged on these services are—

Cayo Largo	... ...	3430 tons.
Cayo Bonito	... ...	3472 „
Cayo Manzanillo	...	3537 „
Cayo Soto	... ...	3081 „

Ports of Call:—

The services maintained are from Antwerp and London to Havana, Puerto Mexico (Coatzacoalcos), Vera Cruz, and Tampico, and a round voyage from London or Antwerp to ports in Mexico, and home via ports in Gulf of Mexico to London or Antwerp. Sometimes steamers call on the outward passage at Bermuda and (or) Havana.

Connecting Services:—

A fast and direct service is maintained to Puerto Mexica which connects with the *Tehuantepec Route*, the shortest and quickest route to San Francisco, Victoria, Vancouver, Portland, Seattle, Los Angeles, Mazatlan, Guaymas, and to other ports on the West Coast of Mexico, North and Central America; also to Honolulu.

The "Direct" Line of Steamers

This company maintains a service of steamers to ports as under in the West Indies.

Offices:—

The principal offices at which information may be obtained are:—Royal Mail Steam Packet Company, London; Henry Langridge & Co., London; Scrutton, Sons, & Co., London, and Prentice, Service, & Henderson, Glasgow.

Ports of Call:—

Steamers sail from London and Glasgow for the West Indian ports. *From London* to Barbados, St. Lucia, Dominica, Grenada, Trinidad, St. Vincent, Antigua, Montserrat, St. Kitts, Jamaica, and Demerara.

From Glasgow to Barbados, Trinidad, and Demerara, and when arrangements are made for the steamers to call, at Tobago, Grenada, St. Vincent, St. Lucia, Dominica, Antigua, St. Kitts, Nevis, and Montserrat.

These services are maintained in conjunction with the Royal Mail Steam Packet Company.

Length of Voyage:—

The voyage from London or Glasgow to Demerara occupies twenty-three days.

The East Asiatic Company, Ltd. (West India Line)

This company maintains a regular mail and passenger service every twenty-eight days to the West Indies,

Head Office:—

Copenhagen. London agents: Messrs. Escombe, M'Grath, & Co.

Steamers:—

The service is carried on by the new steamers *St. Croix*, *St. Jan*, and *St. Thomas*. They have been specially built for the trade and have a carrying capacity of 3500 tons. The s.s. *St. Jan* and *St Thomas*, each for twenty-four first-class passengers.

Ports of Call:—

The steamers sail from Copenhagen, Rotterdam, and London direct to St. Thomas, Dominica, St. Kitts, St. Lucia, Barbados, Trinidad, Demerara, and Paramaribo.

When there is sufficient inducement the steamers also call at St. Croix, St. Eustatius, Antigua, Martinique, Grenada, and St. Vincent; otherwise transhipment takes place at Barbados for Grenada and St. Vincent, and at St. Thomas for the other places.

Length of Voyage:—

The line is the fastest between Europe and the Danish West Indies, the duration of voyage from London to St. Thomas being about fourteen days. The round trip from Copenhagen occupies about ten, and from London about eight weeks.

For further particulars see under "Straits, China, and Japan Ports".

Elders & Fyffes, Ltd.

To the voyageur needing complete rest this company offers opportunities which are not procurable on a big ocean liner. Only a limited number of passengers are carried, and steamers are fitted with every modern appliance for comfort and convenience.

Head Offices:—
London. Branch offices at Manchester and Bristol.
Fleet:—
The company possess a fleet of twelve vessels of varying tonnage, among the steamers being:—

Aracataca	... ...	4400 tons.
Manzanares	... ...	4400 „
Tortuguero	... ...	4161 „

Ports of Call:—
The following are the services maintained by the line: Manchester to Port Limon (Costa Rica), Bristol to Kingston (Jamaica), and Santa Marta (Colombia.) The services are weekly.
Length of Voyage:—
The voyage from England to Jamaica occupies 14 days, to Colombia, 16 days, and Costa Rica, 17 days.
Embarkation:—
Steamers leaving Bristol. — Passengers leave London from Paddington on Tuesday for Temple Meads Station, where they change for Avonmouth Dock.
Steamers leaving Manchester.—Passengers leave London from St. Pancras on Saturday for the Central Station, Manchester, where they transfer to a train for Irlam.

Hamburg-American Line (West Indies and Central American Services)

Services are maintained by this line from Hamburg to Havana, Vera Cruz, and Tampico via Antwerp, Havre, Southampton, and Spanish ports, and from Hamburg to St. Thomas, Curaçao, Trinidad, Carupano, La Guayra, Puerto Cabello, Porto Rico, Kingston (Jamaica), Cartagena, Puerto Colombia, Sanchez, Samana, Puerto Plata, Monte Christi, Cape Hayti, Port au Prince, Colon, Port Limon, Bocas del Toro, Puerto Barrios, and Livingston.
For further particulars of this company see under "United States Ports".

Harrison Line

The services of this line are of a world-wide character and are exclusively cargo services.
Offices:—Liverpool and London.
Fleet:—
The fleet comprises forty-six vessels, with a total tonnage of 242,208 tons.
Ports of Call:—
Steamers sail from Liverpool to Calcutta via Suez Canal: to Barbados, Trinidad, Demerara, La Guayra, Puerto Cabello, Curaçao, &c. (every month); to Kingston (Jamaica), Puerto Mexico, Vera Cruz, Tampico, &c. (every three weeks); to Puerto Colombia, Cartagena, Colon, &c. (every month); to North Pacific ports, from Antwerp, Swansea, Glasgow, and Liverpool, calling at Salina Cruz, San Pedro, San Francisco, Victoria, and Vancouver, to New Orleans (every month); to Pernambuco, Maceio, Cabedello, Natal, and other Brazilian ports. There are also joint services with the Clan and Ellerman Lines from Glasgow and Birkenhead to the Red Sea and East Africa, calling at Port Said, Suez, Port Sudan, Aden, Mombassa, Killindini, Tanga, Zanzibar, and Chinde; and to Cape Town, Mossel Bay, Algoa Bay, East London, Natal, Delagoa Bay, Beira, and Mauritius. To and from Tonnay-Charente (port of Cognac) every ten days.

La Veloce

The service of this company to Central American ports is as follows: Sailing monthly from Genoa to Marseilles, Barcelona, Teneriffe, Trinidad, La Guayra, Curaçao, Puerto Colombia (Sabanilla), Puerto Limon, and Colon.
For further particulars see under "South American Ports".

Larrinaga Line

Liverpool. A service of mail steamers is run between Liverpool and the island of Cuba by this line, calling at the following ports: Havana, Matanzas, Cardenas, Sagua - la - Grande, Nuevitus, Puerto Padre, Santiago de Cuba, Manzanillo, and Cienfuegos.

Leyland Line

These services are as follows: Liverpool to St. Thomas, monthly; twice a month to Puerto Colombia, Colon, and Kingston (Jamaica); every three weeks to Tampico, Vera Cruz, and Progreso; twice a month to Barbados, Trinidad, La Guayra, Puerto Cabello, Curaçao, and Cartagena.
For further particulars see under "United States Ports".

Linea de Vapores de Arrotegui

J. Glynn & Son, Liverpool. The steamers of this line maintain a monthly service to Cuban ports via Northern Spain (Pasages, Bilbao, Santander, Corunna, and Vigo), carrying cargo and a limited number of cabin passengers. From Spanish ports a large number of emigrants are also taken.

Royal Dutch West India Mail Service

This company maintains regular services from Amsterdam to the West Indies under special mail contract with the Netherlands Government.

Head Office:—

Amsterdam. London—Browne, Geveke, & Co.; and at New York.

Fleet:—

Among the steamers owned by this line are the following:—

Prins Willem IV
Oranje Nassau
Prins Willem V
Prins Frederik Hendrik
Prins Willem III

Ports of Call:—

The steamers are dispatched direct from Amsterdam to Paramaribo, Demerara, Trinidad, Carupano, Cumana, Guanta, La Guayra, Puerto Cabello, Curaçao, Jacmel, Aux Cayes, Port au Prince, New York. Another service is maintained between New York and Surinam, via Trinidad or Barbados and Demerara every week.

Length of Voyage:—

The time occupied in the voyage from Amsterdam to New York, via the West Indies, is about 44 days.

Royal Mail Steam Packet Company (West Indian Services)

Steamers of this line start from Southampton every fortnight, calling at Cherbourg and proceeding to the Azores, Barbados, and Trinidad. From there they go to Puerto Colombia, Cartagena, Colon, Jamaica, and Antilla (Cuba), the voyage terminating at New York. There is also an *Intercolonial Service* divided into four branches. The *Demerara Branch*, which is maintained by steamers from Southampton to Trinidad and Demerara; the *Islands Branch*, maintained by steamers from Southampton to Trinidad, Grenada, St. Vincent, St. Lucia, Dominica, Montserrat, Antigua, Nevis, and St. Kitts, and home the same way; *Tobago Branch*, maintained by a special steamer from Trinidad; *Venezuela Branch*, maintained by steamers from Trinidad to Carupano, Porlamar, La Guayra, Puerto Cabello, and back the same way. For further particulars see under "South American Ports".

SOUTH AMERICAN PORTS

In no part of the world has there been so great a development commercially in recent years as in South America; and it is only natural, therefore, that there should be many steamship companies having services to the different parts of this great continent, extended in recent years to the ports of Brazil, the River Plate, and the West Coast of South America. For the purpose of this article the ports mentioned have been grouped together, although in some cases a company confines its attention strictly to one section.

The first place undoubtedly must be given to the combined lines of the Royal Mail Steam Packet Company, starting from Southampton, and the Pacific Steam Navigation Company, whose headquarters are at Liverpool. The two companies, operating from their respective ports, provide a weekly service of passenger and cargo steamers covering the entire coast of South America.

Amongst others, the Nelson Line and Messrs. Lamport & Holt have greatly increased their interest in this part of the world, with which they have been long connected, by entering upon the passenger trade with fine new vessels specially built to meet their requirements. In addition to the British steamship lines, particulars of which are given later, there are a number of Continental companies operating services of considerable importance; amongst which may be mentioned the joint services of the Hamburg America and the Hamburg South America Line, sailing from Hamburg. An important local line is run in connection with the European services to South American ports, viz. the Compania Sud-Americana de Vapores. Mention should also be made of the New Zealand Shipping Company; Messrs. Shaw, Savill, & Albion; and the White Star New Zealand services—all of which call at South American ports on their homeward voyage via Cape Horn.

Allan Line (South American Services)

Services are maintained by this line from Glasgow and Liverpool to Monte Video, Buenos Ayres, and Rosario, fortnightly throughout the year. For full particulars of this line see under "Canadian Ports".

Argentine Cargo Line

Although known as a "cargo line" this company has excellent accommodation for a limited number of saloon passengers on the steamers mentioned below.

Head Offices:—
Messrs. Birt, Potter, & Hughes, Ltd., London, are the managing agents. Other agencies are at Liverpool, Buenos Ayres, &c.
Fleet:—
The following steamers maintain the passenger services of the company:—

La Blanca	... ...	10,500 tons.
Guardiana	... ...	10,000 „
El Argentino	... ...	10,500 „
Manchester City	...	9,000 „

Ports of Call:—
The service is as follows: From London, Liverpool, or Cardiff to Buenos Ayres, calling *en route* at Vigo and/or other ports in Spain, and booking also at through rates of passage to and from Monte Video, Rosario, and other ports in the River Plate. The steamers sail at regular intervals of three weeks.

Booth Line

This line was founded in 1866 by Messrs. Alfred Booth & Co., of Liverpool, by a steam service between Europe and North Brazil; followed in 1869 by Messrs. R. Singlehurst & Co.'s Red Cross Line. The two lines have been closely identified with the rapid progress of the Amazon ports of Para and Manaos, and further service between North Brazil and New York was started in 1882. In 1901 they were amalgamated under the name of the Booth Steamship Company, Ltd. The company also manages the Iquitos Steamship Company, Ltd.
Offices:—Liverpool and London.
Fleet:—
The combined fleets of the two companies consists of thirty-five steamers. Seventeen of these are passenger steamers, amongst which are the following:—

Hildebrand	(twin-screw)	...	7000 tons.
Hilary	„	...	6400 „
Antony	„	...	6400 „
Lanfranc	„	...	6400 „
Anselm	... ...	...	5500 „
Ambrose	... ...	...	4600 „

Ports of Call:—
The mail passenger steamers leave Liverpool every ten days, calling at Havre, Vigo, Leixoes (Oporto), Lisbon, Madeira, Para, and Manaos (River Amazon). There is a service three times monthly between the Amazon River and New York, and a monthly service from Liverpool to Iquitos, calling at Havre, Hamburg (Gravesend alternately), and Lisbon; also between New York and Iquitos.

Length of Voyage:—
Liverpool to Para, 20 days; to Manaos, 27 days; to Iquitos, 1½ months.
Embarkation:—
Passengers embark at the Prince's Landing Stage half an hour before the sailing hour mentioned on list published by the company.

Harrison Line

A cargo service is run by this company to Pernambuco, Maceio, Cabedello, Natal, and other Brazilian ports. See under "Central American and West Indian Ports" for further particulars.

Houlder Line

This company maintains services to and from the River Plate.
Head Office:—London.
Ports of Call:—
The routes to the River Plate are as follows:—
Outward Services.—Bristol Channel ports to Monte Video, Buenos Ayres, and Rosario every month; Antwerp and London to Monte Video, Buenos Ayres, and Rosario every three weeks.
Homeward Services.—Monte Video, Bahia Blanca, and Buenos Ayres to Liverpool and Cardiff every three weeks; Bahia Blanca and Buenos Ayres to Southampton, London, and Newcastle-on-Tyne every three weeks.

Houston Line

This line maintains regular services from both the United Kingdom and the United States to the River Plate. The steamers, although mainly for cargo, have accommodation for a limited number of passengers. They also carry a large number of emigrants from Spanish ports.
Head Offices:—Liverpool and London.
Fleet:—
The fleet includes the following steamers:—

Hermione	... ...	4011 tons.
Hyades	... ...	3352 „
Hostitius	... ...	3325 „
Hesperides	... ...	3393 „

Ports of Call:—
Liverpool to Monte Video, Buenos Ayres, La Plata, Rosario, and Bahia Blanca (weekly); New York to River Plate ports (fortnightly). Also New York to South and East African ports (cargo only).

The Lamport and Holt Line

This company, formed in 1865, has since that

date maintained regular services of passenger and cargo steamers between the United Kingdom and Continent, and all Brazil, River Plate, and West Coast ports. The chief of these services is a line of passenger steamers running between Liverpool and the River Plate; there is also a fortnightly line of mail and passenger steamers running between New York and all Brazilian and River Plate ports. In addition to these, there are regular cargo services carried on by fast cargo steamers, these latter vessels being fitted to carry a limited number of first- and second-class passengers.

Offices:—Liverpool, London, and Manchester.

Fleet:—

The fleet consists of forty-five steamers of a total carrying capacity of over 300,000 tons, of which the following are the most important:—

Vandyck (twin-screw) ...	12,000 tons.
Vauban "	12,000 "
Vestris "	12,000 "
Vasari	10,000 "
Veronese	11,745 "
Voltaire	10,830 "

Ports of Call:—

The following services are maintained: Fortnightly steamers—*Brazil Service.*—Glasgow, Manchester, and Liverpool to Bahia, Rio de Janeiro, and Santos. From Antwerp and London occasionally to Pernambuco and Bahia; fortnightly to Rio de Janeiro and Santos. Between New York and Bahia, Rio de Janeiro and Santos. *River Plate Service.*—From Glasgow and Liverpool to Monte Video and Buenos Ayres. From Antwerp and London to Monte Video, Buenos Ayres, and Rosario. From New York to Monte Video and Buenos Ayres. *West Coast of South America Service.*—From Glasgow and Liverpool to Havre, Punta Arenas, Corral, Coronel, Penco, Talcahuano, Valparaiso, Coquimbo, Taltal, Caldera, Antofagasta, Mejillones, Tocopilla, Iquique, Caleta Buena, Arica, Mollendo, Pisco, Callao, Supe, Salaverry, Eten, Payta, Guayaquil, and other West Coast ports.

Length of Voyage:—

Liverpool to Buenos Ayres: passenger steamers, 21 to 22 days; cargo steamers, 25 days. Liverpool to Bahia: cargo steamers, 16 days. Bahia to Rio de Janeiro, 3 days. New York to Buenos Ayres, 24 days. New York to Rio de Janeiro, 17 days. Rio de Janeiro to Buenos Ayres, 6 days.

Embarkation:—

For steamers sailing from London, passengers generally embark at the Royal Albert Docks; and for steamers from Liverpool, at No. 1 Branch, Alexandra Dock, or from the Prince's Landing Stage.

MacIver Line

This line maintains a service of steamers from Liverpool to River Plate ports which make the voyage in about 24 days.

Offices:—Liverpool and London.

Fleet:—

The fleet includes the following fast steamers:—

Barbary	4185 tons.
Tartary	4181 "
Araby	3303 "
Brittany	2926 "

Ports of Call:—

Liverpool to Monte Video, Buenos Ayres, and Rosario.

Nelson Line

This line was inaugurated in 1888, and since then has continued to supply facilities for linking Britain with the River Plate ports. The steamers engaged in the Liverpool service have hitherto been mainly cargo vessels, but they have had accommodation for a limited number of passengers. The line has now definitely entered the passenger trade to the River Plate, and has ten new steamers, all of 8000 tons, engaged in this service, starting from London.

Offices:—Liverpool and London.

Fleet:—

The fleet consists of twenty steamers, of which the following maintain the passenger service—

Highland Rover.	*Highland Laddie.*
Highland Glen.	*Highland Brae.*
Highland Corrie.	*Highland Loch.*
Highland Pride.	*Highland Scot.*
Highland Piper.	*Highland Warrior.*

Ports of Call:—

The line maintains a fortnightly service from Liverpool to Monte Video, Buenos Ayres, and Rosario; and a weekly service from London to Buenos Ayres.

Length of Voyage:—

The time taken in the voyage from London to Buenos Ayres is about 22 days.

Embarkation:—

The steamers of the London line sail each Tuesday from the Royal Albert Dock.

Pacific Line

The Pacific Steam Navigation Company run Royal Mail steamers (twin-screw) every fortnight from Liverpool to the East and West Coast of South America. They have been connected with the development of this continent since the early

days of the nineteenth century, and were granted a royal charter in 1840.

Head Offices:—Liverpool and London.

Fleet:—

The mail service is maintained by the following steamers:—

Orcoma (twin-screw)	...	11,546	tons.
Orita "	...	9,290	"
Oriana "	...	8,099	"
Ortega "	...	8,058	"
Oronsa "	...	8,050	"
Oravia "	...	5,374	"
Oropesa "	...	5,364	"
Orissa "	...	5,360	"

Other steamers of a smaller tonnage, having passenger accommodation and carrying cargo, are also run every alternate week to the larger vessels, forming a weekly service.

Ports of Call:—

The mail steamers start from Liverpool and call at the following places, via La Rochelle-Pallice: Corunna, Vigo, Leixoes (Oporto), Lisbon, Las Palmas, St. Vincent, Pernambuco, Bahia, Rio de Janeiro, Santos, Monte Video (for Buenos Ayres), Port Stanley (Falkland Islands), Punta Arenas, Coronel, Talcahuano, Valparaiso, Coquimbo, Antofagasta, Iquique, Arica, Mollendo, and Callao. The route is varied somewhat for the intermediate steamers, their ports of call being alternately La Rochelle-Pallice, Monte Video (for Buenos Ayres), Bahia Blanca, Port Madryn, Punta Arenas, Corral, Coronel, Talcahuano, Valparaiso, Coquimbo, Taltal, Antofagasta, Tocopilla, Iquique, Arica, Mollendo, Callao; and Havre, Rio de Janeiro, Punta Arenas, Corral, Coronel, Talcahuano, Valparaiso, Coquimbo, Taltal, Antofagasta, Tocopilla, Iquique, Arica, Mollendo, Callao, and other ports if sufficient inducement offers. Special opportunities are offered by these mail steamers for short holiday trips to France, Spain, and Portugal.

Length of Voyage:—

The time occupied in the outward voyage from Liverpool to Callao is 46 days, and homeward 42 days. The mail steamers connect at Callao with steamers to and from the Isthmus, the voyage from Valparaiso to Panama occupying 12 days, and from Panama to Valparaiso 14 days.

Embarkation:—

Passengers embarking at Liverpool for the mail steamers do so from the Prince's Landing Stage, and for the intermediate service at Alexandra Branch Dock No. 3, Liverpool. By travelling overland to La Rochelle-Pallice or Lisbon, passengers may join the steamers at these places, leaving London by the 9 a.m. train on the Saturday after the steamer's departure from Liverpool, for the first-named place, and on the Sunday by the 9 p.m. train for Lisbon.

Connecting Services:—

The Pacific Steam Navigation Company has a large fleet of first-class mail, passenger, and cargo steamers serving, in conjunction with the Cia Sud Americana de Vapores, practically all the ports on the Pacific coast of South America from Port Montt to Panama.

Royal Mail Steam Packet Company

Holding a Royal Charter dated 1839, the Royal Mail Steam Packet Company has always had a leading position. Under the guidance of Sir Owen Philipps, it acquired control of the Pacific Steam Navigation Co.; Elder Dempster Co., Ltd.; Lamport & Holt; and the Union Castle Line. It also owns the Shire Line, the Glen Line, and controls the largest tonnage of any one company in the world.

Offices:—London, and various branch offices and agencies all over the world.

Fleet:—

The company possess a fine fleet of 45 vessels, of varying tonnage and importance. Amongst them are the following:—

Artanza (triple-screw)	...	14,000	tons.
Asturias "	...	12,002	"
Avon "	...	11,073	"
Araguaya "	...	10,537	"
Amazon "	...	10,037	"
Aragon "	...	9,588	"

Ports of Call:—

The following are the services of the company, with the ports of call. *Brazil and River Plate.*—Southampton, Cherbourg, Corunna, Vigo, Leixoes, Lisbon, St. Vincent, Pernambuco, Bahia, Rio de Janeiro, Santos, Monte Video, and Buenos Ayres, every 14 days. The celebrated "A" steamers (see above) are run on this service. *West Indies.*—Steamers start fortnightly from Southampton and, with a call at Cherbourg, proceed, via the Azores, to Barbados and Trinidad, thence to Puerto Colombia, Cartagena, Colon, Jamaica, and Antilla (Cuba), terminating their voyage at New York, to which place this service has been extended since 1905. The homeward journey follows the same itinerary. *The Inter-Colonial Service.*—This service has four branches: *The Demerara Branch*, which is maintained by steamers from Southampton to Trinidad and Demerara; the *Islands Branch*, maintained by steamers from Southampton to Trinidad, Grenada, St. Vincent, St. Lucia, Dominica, Montserrat, Antigua, Nevis, and St. Kitts,

and home the same way; *Tobago Branch*, maintained by a special steamer from Trinidad; *Venezuela Branch*, maintained by steamers from Trinidad to Carupano, Porlamar, La Guayra, Puerto Cabello, and back the same way. Special attention is paid by the company to short tours, of which the following are particulars:—

To Morocco.—Sailing from London and calling at Laraiche, Rabat, Gibraltar, Tangier, Casablanca, Mazagan, Saffi, Mogador, Las Palmas, Teneriffe, and Madeira, and thence back to London. Sailings every fortnight.

Opportunities for short holidays are afforded by the mail steamers on the South American and West Indies services, and during the summer one of the "A" steamers is temporarily detached for a series of pleasure cruises to the Norwegian fjords, North Cape, and northern capitals, from Grimsby and Leith.

Length of Voyages:—

The lengths of the principal voyages are as follows: Southampton to Buenos Ayres, 22 days; Southampton to New York (West Indies service), 28 days; Southampton to Demerara, 15 days; and Southampton to St. Kitts, 17 days.

Far Eastern Service.—Since 1907 the R.M.S.P. have had an important share in the Shire Line. Most of the steamers engaged in this service are cargo vessels, but have accommodation for a limited number of first-class passengers; the exceptions to this are s.s. *Carmarthenshire* and *Pembrokeshire*, which both have excellent accommodation. The itinerary is as follows: Leave London for Port Said, Suez, Colombo, Penang, Singapore, Hong-Kong, Shanghai, Nagasaki, Kobe, and Yokohama. The journey from London to Yokohama is accomplished in about 52 days.

Austro-Americana Steamship Company, Ltd., of Trieste (South American Services)

This company maintains a service from Trieste every three weeks to Buenos Ayres, calling at Almeria, Las Palmas, Rio de Janeiro, Santos, and Monte Video, and returning via Monte Video, Santos, Rio de Janeiro, Las Palmas, Cadiz, and Naples.

For further particulars of this company see under "United States Ports".

Chargeurs Réunis

This company was founded in 1872 to engage in steamship services to all parts of the world, and especially from Havre to Brazilian and River Plate ports.

Head Offices:—Paris and Havre.

Fleet:—

The fleet comprises thirty-three vessels, including the following:—

Ceylon	... ...	9014 tons
Corse	... ...	9395 „
Malte	... ...	9022 „
Ouessant	... ...	9394 „

Ports of Call:—

Three services are maintained by this company, covering South America, India and China, and the West Coast of Africa. The steamers to Brazil and the River Plate sail every nine days from Dunkirk, Havre, and Bordeaux, calling at Vigo, Leixoes (Oporto), Lisbon, Rio de Janeiro, Santos, Monte Video, and Buenos Ayres.

For further particulars see under "Straits, China and Japan Ports" and "African Ports".

Hamburg-American and Hamburg-South American Lines (South American Services)

Joint services are maintained with the Hamburg-South American Line to Brazilian and River Plate ports, calling at Rio de Janeiro, Monte Video, and Buenos Ayres, and intermediate ports. Also from Hamburg to Para and Manaos, via Antwerp, Boulogne, Havre, Leixoes, Lisbon, and Madeira; to Maranhao, Ceara, and Tutoya, via Antwerp, Leixoes, and Lisbon; to Pernambuco, Rio de Janeiro, and Santos; to Bahia, Rio de Janeiro, and Santos; to Paranagua, Sao Francisco do Sul, Itajahy, and Rio Grande do Sul, via Leixoes and Lisbon; to Cabedello, Maceio, Desterro, Itajahy (as required), and Rio Grande do Sul, via Havre and Leixoes.

For further particulars of this line see under "United States Ports".

Italia Steam Navigation Company (Royal Italian Mail Service)

Head Office:—Genoa.

Fleet:—

The fleet comprises the following vessels:—

Bologna	*Ancona.*
Siena.	*Verona.*
Toscana.	*Taormina.*
Ravenna	

Services:—

This company maintains services to:—

1. *South America.*—From Genoa, calling at Gibraltar, for Santos and Buenos Ayres; sailing twice a month.

2. *United States.*—From Genoa to Naples, New York, and Philadelphia.

Kosmos Line of Hamburg

This line runs a regular four-weekly service from Hamburg, Bremen, and Antwerp, via London, direct to the West Coast of South and Central America.

Offices:—

Hamburg. Chief agents for Great Britain, Messrs. Browne, Geveke, & Co., London.

Fleet:—

The company has a fleet of thirty-seven steamers ranging from 5000 to 8500 tons, all fitted up in the most up-to-date manner, and arranged in every way to provide for the comfort and convenience of passengers. The following are amongst the largest of their steamers:—

Heluan	8500 tons.
Roda	8500 „
Rhakotis	8500 „
Rhodopis	8500 „
Nitokris	8000 „
Sakkarah	8000 „

Ports of Call:—

Steamers leave Hamburg, Bremen, and Antwerp, and calling at London, touch at the following ports: Sandy Point, Corral, Coronel, Talcahuano, Valparaiso, Antofagasta, Tocopilla, Iquique, Arica, Mollendo, Pisca, Callao, Huanchaco, Salaverry, Eten, Guayaquil, Manta, Bahia de Caraquez, Buenaventura, Corinto, San Juan del Sur, Amapala, La Libertad, Acajutla, San Jose de Guatemala, Champerico, Ocos, San Francisco, Seattle, and Tacoma. If sufficient inducement offers, other West Coast ports are called at.

La Veloce

This line possesses a fleet of fifteen steamers ranging from 6000 tons downwards.

Services:—

Four services are maintained:—

1. From Genoa to the River Plate (fortnightly), calling at Barcelona, Las Palmas, Rio de Janeiro, Santos, Monte Video, and Buenos Ayres.
2. From Genoa to Brazilian ports (monthly).
3. From Genoa to New York (fortnightly).
4. From Genoa to Central America, calling at Marseilles.

Office:—Genoa.

Lloyd Sabaudo

Office:—Genoa.

Fleet:—

The fleet consists of five twin-screw steamers of about 11,000 to 12,000 tons, capable of sailing 15 to 18 miles an hour.

Services:—

Two services are maintained:—

1. From Genoa to New York, calling at Naples and Palermo.
2. From Genoa to the River Plate, with the option of calling at Brazilian ports.

North German Lloyd Steamship Company (South American Services)

Services are maintained from Bremerhaven to Pernambuco, Bahia, Rio de Janeiro, and Santos, via Antwerp, Leixoes (Oporto), Lisbon, and Madeira; and from Bremerhaven to Monte Video and Buenos Ayres, via Antwerp, Corunna, Villagarcia or Vigo, and Teneriffe.

For further particulars of this company see under "United States Ports".

Royal Holland Lloyd

This company was established in 1908, and carries on a fast mail and passenger service to Brazil and the River Plate.

Offices:—Amsterdam and London.

Fleet:—

Among the steamers owned by the company are:—

Zeelandia (twin-screw)	...	8000 tons.
Frisia „	...	8000 „
Hollandia „	...	8000 „

Ports of Call:—

This company maintains a regular service between Amsterdam and Buenos Ayres, via Dover, Boulogne-sur-Mer, Corunna, Vigo, Lisbon, and calling at Rio de Janeiro, Santos, and Monte Video.

Length of Voyage:—

The passage from Amsterdam to Buenos Ayres occupies about twenty-three days, and from Dover to Buenos Ayres one day less.

Embarkation:—

Train, London to Dover, on the morning of sailing.

Messageries Maritimes (Brazil and River Plate Lines)

The steamers of this company sail from Bordeaux fortnightly, calling at Lisbon and Dakar, en route to Pernambuco, Bahia, Rio de Janeiro, Santos, Monte Video, and Buenos Ayres.

For further particulars see under "Straits, China, and Japan Ports".

Pinilos, Izquierdo, & Co.'s Steamers

The vessels of this company maintain services to West Indian ports and also to Brazil and the River Plate.

Head Office:—Cadiz.

Fleet:—

The fleet includes the following steamers:—

Barcelona	7000 tons.
Cadiz	7000 „
Balmes	6000 „
Valbarrera	7000 „

Services:—

A vessel leaves Barcelona twice a month for Valencia, Malaga, Cadiz, Puerto Rico, Mayaguez, Ponce, Havana, Matanzas, Santiago, Cienfuegos, and New Orleans.

There are also monthly sailings to Brazil and the River Plate.

Société Générale de Transports Maritimes à Vapeur

This company was founded in 1865, and maintains important services to the Atlantic and Mediterranean.

Offices:—Paris and Marseilles.

Fleet:—

The fleet of the company consists of twenty-three vessels, of which eleven are on the Atlantic service and eight on the Mediterranean. The following steamers are the largest and are twin-screws:—

Salta	7500 tons.
Parana	6000 „
Plata	6000 „
Pampa	5000 tons.
Formosa	4300 „

Ports of Call:—

Services to Brazil and River Plate.—Leaving Genoa and Marseilles for Buenos Ayres, calling at Almeria, Dakar, Rio, and Santos on the outward voyage; omitting Almeria, and calling at Monte Video and Las Palmas in addition to the other ports, on the homeward journey. Leaving Genoa and Marseilles for Buenos Ayres, via Barcelona and Dakar; returning via Dakar and Las Palmas. Leaving Genoa and Marseilles for Buenos Ayres, calling at Valencia, Malaga, Dakar, Santos, and Monte Video: returning via Dakar and Las Palmas. Leaving Genoa and Marseilles for Buenos Ayres, calling at Barcelona, Valencia, Malaga, Gibraltar, Dakar, Bahia, Rio de Janeiro, Santos, and Monte Video; returning via Monte Video, Santos, Rio de Janeiro, Bahia, Pernambuco, and Las Palmas.

Mediterranean Services.—Marseilles to Oran, mail service (weekly); Marseilles to Algiers (twice a week); Marseilles to Bone (weekly); Marseilles to Philippeville and Bougie (weekly); and vice versa.

Length of Voyage:—

Brazil and River Plate Service.—Marseilles to Buenos Ayres, via Santos, 20 days; Marseilles to the same place, via Dakar, 18 or 19 days; vía Monte Video, 23 days; and via Gibraltar and Rio de Janeiro, 25 days. Sailings once a month for each itinerary.

Embarkation:—

Passengers for the *South American* boats embark at the Quai des Anglais, Marseilles, on the boats lying alongside the wharf. For the *Mediterranean Line* passengers embark from the Quai de la Joliette.

AFRICAN PORTS

Shipping conferences have been a fertile source of discussion for many years past; and perhaps the South African Conference has come in for more hard words at the hands of shippers and merchants than any other conference of its kind,—in fact so acute has the question become that the South African Government has taken the matter up very strongly with the object of making such conferences illegal. (See also Part I, Chapter X.)

There is, however, no doubt that one result of the South African Conference has been to enable the steamship lines to maintain a regular and high-class service, which under other conditions might have been impossible. The first place in the list of steamship companies must be given to the Union-Castle Line, now amalgamated with the R.M.S.P. Co., the vessels of which have carried the mails to South Africa for many years. In addition to the services which are so well known, they are now running a line of steamers, via the Suez Canal, to South and East Africa, so that travellers journeying out by one route can return home by the other. Among Continental steamship companies, mention should be made of the Deutsche Ost-Afrika Line, which by its services also carries passengers right round Africa by the East and West Coast routes.

In addition to the steamship companies of which particulars are now given, mention must be made of the following lines which call at Cape Town,

en route to Australian ports. These are the Aberdeen Line; Federal-Houlder-Shire; New Zealand Shipping Company; P. & O. Branch Line; Shaw, Savill, & Albion Line; and the White Star Line—the first-named line carrying the mails between South Africa and Australia.

Aberdeen Direct Line

This line of steamers affords a direct regular service between London, Natal, and East Africa, and has good accommodation for first-class, intermediate saloon, and second-class passengers.

Offices:—

J. T. Rennie, Son, & Co., London.

Fleet:—

Among the steamers employed on the services of this line are:—

Inanda	... ...	6130 tons.
Inkosi ...	... ...	5613 „
Inkonka	... ...	6000 „
Insizwa	... ...	4850 „

Ports of Call:—

The services maintained are from London to Natal, Delagoa Bay, and Beira, sometimes calling at Inhambane *en route*. The vessels call at Portland for dispatches, and the Canary Islands.

Length of Voyage:—

The outward passage takes from 23 to 25 days from Portland by the larger steamers, and about 27 to 28 by intermediate.

Embarkation:—

Passengers may, as a rule, embark at Portland by arrangement, and the owners will in that case provide them with vouchers to enable them to obtain tickets from London to Weymouth at a reduced fare, where a tender will convey them alongside the steamer.

Connecting Services:—

Passengers can be booked through to Chinde, Mozambique, Zanzibar, Mombasa, or other East African ports, and Madagascar, by transhipment at Durban, Delagoa Bay, or Beira to the steamers of another line.

African Steamship Company, and the British and African Steam Navigation Company, Ltd. (Elder, Dempster, & Co., Ltd.)

The African Steamship Company was incorporated in 1852 by royal charter, and the two lines carry the mails between Liverpool and the West and South-West Coasts of Africa, under contract with the Postmaster-General.

Offices:—Liverpool and London.

Fleet:—

The various fleets consist of eighty-nine vessels in all, ranging from 7000 tons downwards.

Services:—

Four chief services are run as follows:—

1. *Weekly Express Service* to Sierra Leone, Gold Coast, Southern and Northern Nigeria. From Liverpool to Grand Canary, Sierra Leone, Monrovia, Axim, Seccondee, Cape Coast, Accra, Lagos Roads, Forcados, Bonny, Calabar.

2. *Benin and Brass Service.*—Liverpool to Madeira, Teneriffe, Grand Canary, Conakry, Sierra Leone, Lahou, Half Jack, Grand Bassam, Assinee, Axim, Seccondee, Cape Coast, Saltpond, Accra, Kotonou, Brass, Akassa, Forcados, Warri, Benin, Sapele.

3. *Opobo Service.*—Liverpool to Teneriffe, Grand Canary, Dakar, Goree, Rufisque, Bathurst, Sierra Leone, Monrovia, Grand Bassam, Cape Palmas, Axim, Seccondee, Cape Coast, Winneba, Appam, Accra, Addah, Bonny, New Calabar, Opobo.

4. *South Coast Service.*—Liverpool to Sierra Leone, Sherbro, Sinoe, Bereby, Sassandra, Addah, Half Assinee, Dixcove, Adjuah, Chama, Elmina, Pram Pram, Quittah, Lome, Grand Popo, Whydah, Fernando Po, Rio del Rey, Victoria, Duala, Longgi, Kribi, Plantation, Batanga, Eloby, Gaboon, Cape Lopez, St. Thomé, Loango, Quillo, Landana, Cabenda, Congo, Loanda.

There are also services between Hamburg, Rotterdam, and the West Coast of Africa; and between London and the West Coast (Sierra Leone, Gold Coast, Rivers, Gaboon, Dahomey, Togo Land, and Hamburg).

Holiday Tours:—

These lines make a special feature of holiday tours to Madeira, Teneriffe, and Grand Canary.

British India Steam Navigation Company

This company carries the mails, in conjunction with the Peninsular and Oriental Steam Navigation Company, between Aden, Mombasa, and Zanzibar.

Services:—

London to Port Sudan, Aden, Mombasa, and Zanzibar (direct service every four weeks); homeward voyage via Marseilles. London to Mombasa and Zanzibar every four weeks, transhipping at Aden. For full particulars of the services of this company see under "Indian Ports".

Bucknall Steamship Line

With the exception of the South and East African boats, the steamers of this company are

all cargo boats. The passenger steamers maintain what is known as the British and Colonial Line, which also runs a regular service of fast steamers during the wool season from Australia to the United Kingdom and Continental ports.

Head Office:—

London. South African branch—Cape Town.

Fleet:—

The fleet of this company consists of thirty steamers, including the following:—

Kioto	... ...	10,530 tons.
Kansas	... ...	10,320 "
Johannesburg	...	6,200 "
Port Salisbury	...	6,200 "
Buluwayo ...	...	6,200 "

Ports of Call:—

The steamers sail from London and proceed to the following ports: Teneriffe, Cape Town, Mossel Bay, Algoa Bay, East London, and Natal.

Other regular cargo services are:—

American and African Line.—New York to South and East African ports, Madagascar, Réunion, and Mauritius.

Persian Gulf Line.—London, Glasgow, Manchester, South Wales, and Marseilles, to Red Sea and Persian Gulf ports, out and home.

American and Manchurian Line.—New York to Straits Settlements, Philippines, Japan, and Manchuria, and return.

American and Indian Line.—India to New York, Philadelphia, and Boston; also New York to India.

American and Australian Line

New York to Australian and New Zealand ports.

Ellerman-Bucknall Joint Service

Between Australian ports and Mauritius and South Africa.

Length of Voyage:—

The journey from London to Natal occupies about 23 days.

Harrison Line, Clan Line, Ellerman Line

Jointly with the Clan and Ellerman Line, services are maintained from Glasgow and Birkenhead to the Red Sea and East Africa, calling at Port Said, Suez, Port Sudan, Aden, Mombasa, Killindini, Tanga, Zanzibar, and Chinde; and to Cape Town, Mossel Bay, Algoa Bay, East London, Natal, Delagoa Bay, Beira, and Mauritius. See under "Central American and West Indian Ports" for further particulars.

Natal Line

Head Office:—

Bullard, King, & Co. (owners), London. West End agents—Hickie, Borman, Grant, & Co., Ltd.

Fleet:—

The fleet consists of thirteen steamers, which includes the following:—

Umona	... ...	5500 tons.
Umzuinbi	... ...	5000 "
Umvolosi	... ...	4500 "
Umsiuga	... ...	4500 "

Ports of Call:—

The "Natal Direct Line" of steamers affords two distinct services—between London and Natal direct; and between Natal, East African and Cape ports, Ceylon, India, and the Far East. The "direct" service is supplied by steamers sailing every ten days from London to Natal, Delagoa Bay, and Beira, via Las Palmas only.

Far East Service.—Under contract with the Natal Government this company's steamers also perform a regular fortnightly service between Natal, Ceylon, Calcutta, and Madras, calling also at Cape ports, Delagoa Bay, and Beira. This service affords through communication with the Straits Settlements (Singapore and Penang), China (Foochow, Hong-Kong, Shanghai, and Hankow), and Japan (Yokohama and Kobe), by transhipment at Calcutta or Colombo. Steamers leave Calcutta at frequent intervals for the Far East; and a steamer leaves Hong-Kong for Calcutta about every ten days, and connects there with one of the steamers of the "Natal Direct Line". Through rates are quoted for cargo from or to China. At intervals the steamer for London proceeds to Bombay (after discharging at Natal), via Delagoa Bay, Beira, Zanzibar, and Mombasa, returning to England via the Suez Canal. On the return journey from Calcutta to Natal, steamers do not call at South-East African ports, the itinerary being via East London, Algoa Bay, Mossel Bay, and Cape Town.

Length of Voyage:—

The round voyage from Britain to Natal and back, in the same steamer, occupies about nine weeks, while the voyage from London to Natal occupies 26 days.

Embarkation:—

All passengers must embark at the East India Dock.

Royal Mail Steam Packet Company

African (Morocco) Service. — This company has a service sailing from London and calling at Laraiche, Rabat, Gibraltar, Tangier, Casablanca, Mazagan, Saffi, Mogador, Las Palmas, Teneriffe, and Madeira, and thence back to London. Sailings every fortnight. For further particulars see under "South American Ports".

Union-Castle Line

This company has two classes of boats — the Royal Mail steamers under contract with the colonial governments, and the Intermediate steamers taking passengers at lower rates than the mail boats. The Intermediate vessels are under contract with His Majesty's Government to call at Ascension and St. Helena with mails once a month.

Head Office: — London, Donald Currie & Co., managers; and Southampton.

Fleet:—

The fleet consists of forty-seven vessels, of which seven are over ten thousand tons:—

Balmoral Castle	13,361 tons.
Edinburgh Castle	13,326 "
Kenilworth Castle	12,975 "
Armadale Castle	12,973 "
Walmer Castle	12,546 "
Saxon	12,385 "
Briton	10,248 "

Ports of Call:—

Three distinct services are run: The Royal Mail Service starts from Southampton, calling at Madeira, Cape Town, Algoa Bay (Port Elizabeth), East London, and Durban (Natal).

The Intermediate Service starts from London and Southampton, calling at Las Palmas (Grand Canary) and Teneriffe alternately; once a month at Ascension and St. Helena with mails; then to Cape Town, Mossel Bay, Algoa Bay (Port Elizabeth), East London, Durban (Natal), and alternately to Delagoa Bay (Lourenço Marques), and once a month to Beira and Mauritius. Steamers call at Lobito Bay as required.

The third service, proceeding in the opposite direction, is to the principal East African ports, via the Suez Canal. Every twenty-eight days the company dispatch a steamer from London and Southampton, calling at Gibraltar, Marseilles, Naples, Port Said, Suez, Port Sudan, Aden, Mombasa, Zanzibar, Mozambique, Chinde, Beira, Delagoa Bay and Durban. Passengers by travelling overland to Marseilles or Naples may leave London a week later than those joining at Southampton, the voyage to Beira, the nearest port for Rhodesia, taking about twenty-seven days. This direct East African steamer connects at Durban with the homeward and outward bound mail steamers, and passengers can therefore take the round trip from England and back by the East and West Coast routes.

Length of Voyage:—

The Mail Steamers take 17 days from Southampton to Cape Town, and 22 to Durban.

The Intermediate Steamers take about 21 days from Southampton to Cape Town, and about 25 to Durban.

The steamers via the Suez Canal take 40 days from Southampton to Durban.

Embarkation:—

Passengers by the Mail Steamers embark at Southampton. Special trains leave Waterloo (L. & S. W. Rly.) on the day of sailing, and run alongside the quay at which the steamer is lying.

Passengers by the Intermediate Steamers can embark either in London or Southampton. The vessels load in the East India Dock Basin, and trains are run from Fenchurch Street Station to Blackwall Station, about 200 yards from the dock. Special trains are dispatched from London to Southampton in connection with these vessels.

Connecting Services:—

Passengers for Delagoa Bay, Beira, Chinde and Quilimane, Mozambique, Zanzibar, Mombasa, &c., can either proceed direct by the East Coast steamers, via the Suez Canal, or can travel by the West Coast route and tranship at Durban. Connections are effected at Mauritius with the British India Steam Navigation Company's Calcutta steamers.

Chargeurs Réunis

This company maintains a service twice a month from Dunkirk, Havre, and Bordeaux to Teneriffe, Dakar, Conakry, Tabou, Grand Bassam, Cotonou, Libreville, Cap-Lopez, Sette Cana, Mayumba, Loango, Banana, Boma, and Matadi.

For further particulars see under "South American Ports" and "Straits, China, and Japan Ports".

Compagnie Belge Maritime du Congo

This company, which was formerly managed by Messrs. Elder, Dempster, & Co., Ltd., is now under Belgian control.

Head Office:—Antwerp.

Services:—

The company maintains an express postal service from Antwerp to the Congo, calling at La Rochelle-Pallice, Teneriffe, Dakar, Conakry, Sierra Leone, Grand Bassam, Banana, Boma, and Matadi.

Deutsche Ost-Afrika Line

This company was founded by Carl Woermann of the Woermann Line, and it runs in connection with that line, the Hamburg-Amerika Line (African service), and the Hamburg-Bremer-Afrika Line.

Head Office:—

Hamburg. London agents, Ellis, Kislingbury, & Co.

Fleet:—

The fleet consists of twenty-two vessels, and in addition two vessels of the Woermann Line, one of the Hamburg-Amerika Line, and one of the Hamburg-Bremer-Afrika Line.

Services:—

Two main-line services are maintained.

1. Following the Western route from Hamburg, via Bremerhaven, Antwerp, Southampton, Las Palmas, Teneriffe, Swakopmund, Lüderitzbucht, Cape Town, Port Elizabeth, East London, Durban, Lourenço Marques, Beira, Chinde, Mozambique, Zanzibar, Daressalem, Tanga, Killindini, Aden, Suez, Port Said, Naples, Marseilles, Tangier, Lisbon, Southampton, Flushing, Hamburg.

2. Following the Eastern route, via the Suez Canal, and making the same calls, returning via Las Palmas and Teneriffe.

The steamers of these two main lines make the whole journey round Africa in both directions, enabling travellers to complete the circle without changing vessels.

There are also the following services:—

3. A monthly mail and cargo service (Intermediate Line) from Hamburg, possibly calling at Rotterdam or Antwerp, via Naples and Suez Canal to East Africa, returning the same way and calling at Marseilles.

4. A four-weekly cargo service from Hamburg through the Atlantic Ocean to South and East Africa, as well as Madagascar, and returning the same way.

5. A fortnightly mail and passenger service between Bombay and East and South-East Coast of Africa (Bombay Line).

6. A coasting service on the East Coast of Africa in connection with the main-line steamers.

Empreza Nacional de Navegacao

The vessels of this company are specially built to meet the requirements of the services they maintain.

Head Office:—Lisbon.

Services:—

1. Lisbon to Madeira, San Vicente, S. Thiago, Principe, S. Thome, Landana, Cabinda, S. Antonia do Zaire, Ambrizette, Ambriz, Loanda, Navo Redondo, Lobito, Benguella, Mossamedes, Bahia dos Tigres, Porto Alexandre, Cape Town, Lourenço Marques, Beira, Mozambique, and other coast ports.

2. San Vicente to S. Antao, S. Nicolau, Sal, Boa Vista, Maio, Praia, Tarrafal, Fogo, and Brava.

3. Lisbon to S. Thiago, Bissau, and Bolama.

Fabre Steamship Company (African (West Coast) Services)

A service is maintained by this company between Marseilles and Las Palmas, Conakry, Grand Bassam, Cotonou, and intermediate ports, the vessels sailing on the 25th of each month.

For further particulars of this company see under "United States Ports".

Hamburg-American Line (African Services)

From Hamburg to West Africa. This is a joint service with the Woermann Line. The ports of call are as follows:—

From Hamburg, via Channel ports, to Madeira, Teneriffe, Las Palmas, Goree, Dakar, Rufisque, and other West Coast of Africa ports.

A service is run in conjunction with the Deutsche Ost-Afrika Line to East and South Africa, calling at Marseilles, Port Said, Suez, Aden, Kilindini, Tanga, Zanzibar, Mozambique, Chinde, Beira, Lourenço Marques, Durban, East London, Port Elizabeth, Cape Town, Lüderitzbucht, and Swakopmund.

For further particulars of this company see under "United States Ports".

Messageries Maritimes (Indian Ocean Services)

These services consist of two main lines and four branch lines.

Main Lines:—

1. Marseilles to Port Said, Suez, Djibouti, Mombasa, Zanzibar, Mayotte, Majunga, Nossi-Be, Diego-Suarez (Sainte Marie on the homeward voyage), Tamatave, Réunion, Mauritius.

2. Marseilles to Port Said, Suez, Djibouti, Aden, Mahé, Diego-Suarez, Sainte Marie (on the outward voyage), Tamatave, Réunion, Mauritius.

Branch Lines:—

1. Majunga to Namela, Morundava, Ambohibe, Tulear, Lourenço Marques, and Durban.

2. Diego-Suarez to Nossi-Be, Analalave, Majunga, Mayotte, Mutsamudu, Mohely; Moroni, and Zanzibar.

3. Diego-Suarez to Vohemar, Maroansetra,

Tamatave, Vatomandry, Mahanoro, Mananjary, Farafangana, Fort-Dauphin, Tulear, and Durban.

4. Tamatave to Vatomandry, Mahanoror, Mananjary, Farafangana, Fort-Dauphin, and Tulear.

For further particulars see under "Straits, China, and Japan Ports".

Società Nazionale di Servizi Marittimi (African Service)

This service starts at Genoa, and calls at Leghorn, Naples, Catania, Alexandria, Port Said, Suez, Port Sudan, Massowah, Aden, Obbia, Mogadisci, Merka, Brava, Kisimago, Mombasa, and Zanzibar.

For further particulars of this company see under "Indian Ports".

Woermann Line

This line maintains a large number of services to the West and South-West Coast of Africa in conjunction with the Hamburg - Amerika Line (African service) and the Hamburg-Bremer-Afrika Line.

Head Office:—

Hamburg. London agents, Ellis, Kislingbury, & Co.

Fleet:—

The Woermann fleet comprises thirty - three steamers, the Hamburg-Amerika fleet ten steamers, and the Hamburg-Bremer-Afrika Line fourteen steamers.

The following are some of the biggest vessels of the combined fleet:—

Badenia	10,000 tons.
Rhenania	7,600 „
Windhuk	7,400 „
Carl Woermann ...	8,500 „
Adolph Woermann ...	7,400 „
Eduard Woermann ...	7,400 „
Gertrud Woermann ...	7,500 „
Answald	8,500 „
Gundrun	7,500 „
Winfried	8,500 „

Services:—

The principal line for passenger traffic is as follows:—

Cameroons Main Line:—

From Hamburg twice monthly, calling at Dover and Boulogne on the outward voyage, and at Southampton and Boulogne on the homeward voyage. The steamers then proceed to Teneriffe, Las Palmas, Conakry, Monrovia, Grand Bassam, Sekondi, Accra, Lome, Lagos, Victoria, Duala, Kribi, Plantation, Longji, Victoria, Duala, and *vice versa.*

There are also eleven other lines:—

1. *Lüderitzbucht Line.* — From Hamburg to Canary Islands, Lüderitzbucht, and Swakopmund.
2. *South Line 1.*—From Hamburg and Antwerp to Mossamedes, calling at intermediate ports.
3. *Gold Coast Line.* — From Hamburg and Rotterdam to Accra, calling at intermediate ports.
4. *Lagos and Forcados Line.*—From Hamburg and Rotterdam to Forcados and Sapele, calling at intermediate ports.
5. *Togo Line 1.*—From Hamburg, Bremen, and Rotterdam to Gold Coast, Togo, and Dahomey.
6. *Swakopmund Line.*—Freight service direct from Hamburg to German South-West Africa.
7. *Liberia Line.*—Hamburg and Rotterdam to Senegal, Liberia, and Ivory Coast.
8. *South Line 2.*—From Hamburg and Antwerp to Congo River.
9. *Cameroons Line 2.* — From Hamburg to Lagos, Cameroons, and Fernando Po.
10. *Lagos and Oilrivers Line.*—Hamburg and Rotterdam to Liberia, Lagos, and Oilrivers.
11. *Togo Line 2.*—From Hamburg and Rotterdam to Bissao, Bolama, Accra, Togo, and Dahomey.

Other Services:—

See Deutsche Ost-Afrika Line for particulars of services in conjunction with this company. There is also a direct service from New York to West Africa and back to New York, in connection with the lines of Messrs. Elder, Dempster, & Co., Ltd.

INDIAN PORTS

A high place of honour in connection with this great trade route must be given to Lieut. Waghorn, the pioneer of the overland route to India, who in 1829, on behalf of the East India Company, carried the mails to India, via Suez and Aden. In this way was inaugurated a regular service of caravans across Egypt conveying the overland mail to India. The opening of the Suez Canal was of course the commencement of the great developments in the connection between Europe and India.

Anchor Line

The Indian services of this line are as follows: Glasgow and Liverpool to Bombay, calling at Gibraltar, Port Said, and Suez; and Glasgow and Liverpool to Calcutta, calling at Port Said and

Suez, and on the homeward journey at Colombo, Port Said, Suez, Genoa, Leghorn, and Gibraltar for London. Both fortnightly. For further particulars of this company see under "United States Ports".

British India Steam Navigation Company, Ltd.

This company run a large number of services under contract with His Majesty's Government and the Government of India for mail services to ports in India, East Africa, Arabia, Persia, Burma, and Mauritius.

Offices:—

London and Glasgow. Chief agents, Gray, Dawes, & Co., London.

Fleet:—

The fleet consists of 119 vessels, amongst which are included the following:—

Queda	7703 tons.
Querimba ...	7696 "
Quiloa	7697 "
Rewa	7299 "
Rohilla	7400 "

Ports of Call:—

The principal services are from—

1. London to Calcutta (fortnightly), calling at Marseilles, Genoa, Port Said, Suez, Aden, Colombo, and Madras. On the homeward voyage the steamers call at Plymouth to land passengers.

2. London and Brisbane, under contract with the Queensland Government. For particulars see under "Australian Ports".

3. London to Kurrachee, Bombay, and Persian Gulf (about every twenty-one days), calling at Port Said and Suez; connecting at Kurrachee with the company's coasting steamers to and from all the Persian Gulf ports; connecting at Bombay with the company's weekly steamers to and from Malabar Coast ports as inducement offers.

4. London to Port Sudan, Aden, Mombasa, and Zanzibar (direct service every four weeks). Homeward voyage via Marseilles.

5. London to Mombasa and Zanzibar every four weeks, transhipping at Aden.

Other services are run as follows:—

Calcutta and Rangoon (twice weekly).

Calcutta, Rangoon, and Moulmein (fortnightly).

Calcutta, Rangoon, Penang, and Singapore (weekly).

Calcutta, Chittagong, Aracan, and Burma (weekly).

Rangoon, Tavoy River, and Mergui (weekly); Moulmein, Yeh, Tavoy River, Mergui, and Penang (fortnightly); Mergui and Palaw (fortnightly); Mergui, Kamaw, Bokpyin, Karathuri, Victoria Point, and Maliwoon (fortnightly).

Rangoon and Coromandel Coast ports (weekly).

Rangoon, Madras, and Negapatam (weekly).

Madras, Pondicherry, Cuddalore, Karikal, Negapatam, Penang, Port Swettenham, and Singapore (fortnightly); Madras, Negapatam, Penang, Port Swettenham, and Singapore (fortnightly).

Penang, Port Swettenham, and Singapore (weekly).

Calcutta to Colombo and Mauritius (four-weekly). This service connects four-weekly at Colombo with the P. & O. and the company's Home Line steamers, and at Mauritius with the Union-Castle Line steamers for Cape ports.

Calcutta and Bombay coasting (fortnightly), calling at False Point, Gopaulpore, Calingapatam, Bimlipatam, Vizagapatam, Coconada, Masulipatam, Madras, Pondicherry, Cuddalore, Negapatam, Galle, Colombo, Tuticorin, Colachel or Quilon, Aleppey, Cochin or Mallipuram, Calicut, Tellicherry, Cannanore, Mangalore.

Rangoon, Colombo, Malabar ports, and Bombay (fortnightly); Akyab, Colombo, and Malabar ports (fortnightly).

Bombay and Kurrachee direct (weekly), via Kathiawar Coast ports (twice weekly).

Bombay, Kurrachee, Muscat, Bushire, Muhamrah, and Bushire (weekly).

Bombay, Kurrachee, Pasni, Muscat, Bunder Abbas, Linga, Bahrein, and Bushire (weekly); calling at Gwadur, Jask, Dubai, Koweit, Muhamrah, and Bushire (fortnightly).

Bombay and East African ports (four-weekly).

Aden, Mombasa, Zanzibar (four-weekly); carrying mails between Aden, Mombasa, and Zanzibar.

Additional services are also maintained as follows:—

Calcutta and Australia.—Steamers leave Calcutta about once a month for Australia, calling at the following ports: Singapore, Fremantle, Adelaide, Melbourne, and Sydney. The steamers usually return via Torres Straits, completing the tour from India round the Australian colonies in three or four months.

Calcutta and New Zealand.—Steamers leave Calcutta as inducement offers, for New Zealand ports, returning via Australia.

Calcutta, Ceylon, Malabar, and Bombay.—In addition to the time-table service via coast ports, extra steamers leave Calcutta for Coromandel, Ceylon, Malabar, and Bombay, and *vice versa*, about one a week, proceeding direct or calling at coast ports as required.

Rangoon and Moulmein.—Steamers leave Rangoon for Moulmein and Moulmein for Rangoon every Monday, Wednesday, and Friday morning.

The passage between Rangoon and Moulmein takes about nine hours.

Rangoon and Penang.—A fortnightly service is maintained, connecting at Penang with the North German Lloyd and P. & O. mail steamers running between Europe, Straits, and China.

Rangoon, Straits, China, and Japan.—Steamers leave Rangoon as inducement offers, for Straits, Hong-Kong, Amoy, Manila, Cebu, Iloilo, Yokohama, Yokkaichi, Kobe, and Moji.

Tuticorin and Colombo.—A daily service (Sundays included) is maintained between Tuticorin and Colombo. The steamers leave Colombo and Tuticorin every evening, and arrive at Tuticorin and Colombo following morning. Passage about twelve and a half hours. The steamers connect at Tuticorin with the South India Railway trains for cargo and passengers to Colombo.

Mandapam and Paumban.—A daily service is maintained between Mandapam and Paumban in conjunction with the South Indian Railway at Mandapam.

Bibby Line

The Bibby Line was founded in 1807, the fleet then consisting of small sailing ships. In 1821 a regular line to the East Indies was established, and steamers in 1851. The present service, which has been running to Colombo and Rangoon since 1891, quickly established itself as the direct first-class fast service for Burma, and, as such, was early recognized by the Government, and placed on the list of the special lines available for officers, &c., returning at the expiration of their leave.

Offices:—Liverpool and London.

Fleet:—

The fleet consists entirely of twin-screw steamers, all fitted with bilge keels, and specially built for this first-class Eastern passenger trade. They are fitted with Marconi wireless telegraphic apparatus.

Staffordshire	(twin-screw)	...	6022 tons.
Derbyshire	,,	...	6747 ,,
Worcestershire	,,	...	7160 ,,
Herefordshire	,,	...	7182 ,,
Warwickshire	,,	...	7966 ,,
Leicestershire	,,	...	8040 ,,
Gloucestershire	,,	...	8100 ,,
Oxfordshire	,,	...	8400 ,,

Ports of Call:—

The steamers leave Liverpool fortnightly for Colombo and Rangoon, calling at Marseilles, Port Said, Suez; returning to London.

Length of Voyage:—

Liverpool to Colombo, 26 days; to Rangoon, 30 days. Return journey: Rangoon to London, about 30 days; from Colombo to London, 26 days.

Embarkation:—

Special trains from London and the South connect with the departure of the steamers from the Mersey.

Brocklebank Line

This company was founded in the year 1770, and were practically the pioneers of the general trade to Calcutta which followed the abolition of the East India Company's monopoly.

Office:—

Liverpool. Agencies in various parts of the world.

Fleet:—

The fleet consists of ten steamers of the highest class, including the following:—

Mandasor	... ...	8000 tons.
Mahronda	... ...	7630 ,,
Malakand	... ...	7654 ,,
Manipur	... ...	7654 ,,

Ports of Call:—

The steamers sail from Liverpool and proceed direct to Calcutta, stopping only for a few hours at Port Said. The return v yage is made from Calcutta, via Colombo and Port Said, to Tilbury Docks, London. A separate service is run in conjunction with the "Shire" Line from London to the Straits, China, and Japan.

Length of Voyage:—

From Liverpool to Calcutta the voyage occupies 29 days; from Calcutta to London, via Colombo, about 30 days.

City and Hall Lines (Ellerman Lines of Steamers)

The steamers of these lines being of various passenger-carrying capacity, are, for the purpose of reference, divided into two groups, viz. *A* and *B*, the first named having large passenger capacity, and carrying surgeon and stewardess; and the *B* class carrying a limited number of passengers at lower rates, but having no surgeon or stewardess.

Head Offices:—

City Line, Geo. Smith & Sons, Glasgow; London agents, Montgomerie & Workman. Hall Line, Ltd., Liverpool; London agency.

Fleet:—

The fleets of the two lines comprise twenty-two for the City and twenty-three for the Hall Line. Some of the latter do not carry passengers. The following may be mentioned:—

City Line

City of Paris	9200 tons.
City of London	9000 „
City of Calcutta	7512 „

Hall Line

Trafford Hall	5321 tons.
Adalia	3847 „
Anatolia	3847 „

Ports of Call:—

City Line.—For Calcutta from Liverpool, calling at Port Said; for Calcutta and Colombo from Liverpool, calling at Port Said, *en route* to Colombo; for Colombo, Madras, and Calcutta, and for Madras and Calcutta, via Port Said. On the outward voyage, at certain seasons, steamers call at Naples; and on the homeward voyage at Marseilles, when inducement offers, and London.

City and Hall Lines (Joint Service), via Port Said, to Bombay and Kurrachee from Liverpool; to Kurrachee direct and to Bombay direct, both from Liverpool. Outward steamers during the autumn call, if sufficient inducement offers, at Naples or Marseilles. The steamers on all services carry passengers to Malta, Port Said, and Suez.

Length of Voyage:—

The passage from Liverpool to Calcutta takes about 31 days (Suez Canal excluded); Liverpool to Colombo, 24 days; Liverpool to Bombay, 24 days; Liverpool to Kurrachee, 29 days.

Embarkation:—

Passengers usually embark at East Quay, East Float, Birkenhead. During the height of the outward passenger season, to certain steamers special carriages or trains are run from London to Liverpool or Birkenhead.

Clan Line

This line maintains regular cargo services from Glasgow, Manchester, and Birkenhead, via Suez Canal, to Bombay direct; Glasgow and Birkenhead to Colombo, Madras, and Calcutta direct; and Glasgow and Birkenhead to Chittagong direct.

Offices:—

Cayzer, Irvine, & Co., Ltd., London, Manchester, Liverpool, and Glasgow.

Harrison Line

This company maintains a cargo service to Calcutta via the Suez Canal. See under "Central American and West Indian Ports" for further particulars.

Henderson Line

The steamers of this company are specially built for the Eastern passenger trade, and maintain regular services between this country and India (Burma).

Head Office:—

P. Henderson & Co., Glasgow; and agencies in London, Liverpool, Plymouth, &c.

Fleet:—

Among the steamers engaged in the service of this line are—

Mandalay	8500 tons.
Chindwin	8500 „
Henzada	8000 „
Irrawaddy	7620 „
Martaban	7520 „
Tenasserim	7510 „
Ava	7483 „

Ports of Call:—

The steamers sail fortnightly from Glasgow and Liverpool to Rangoon direct, via the Suez Canal, and *vice versa.* On the homeward voyage the steamers sometimes go to London or Plymouth instead of Liverpool.

Length of Voyage:—

The voyage from Glasgow to Rangoon occupies 40 days, and from Liverpool 33 days.

Embarkation:—

At Liverpool, passengers embark at the North Side, Alfred Dock, Birkenhead.

Natal Line

Under contract with the Natal Government this company's steamers maintain a regular fortnightly service between Natal, Ceylon, Calcutta, and Madras. At intervals the steamer for London proceeds to Bombay (after discharging at Natal), calling at Delagoa Bay, Beira, Zanzibar, and Mombasa, and returning to England via the Suez Canal. For further particulars of this line see under "African Ports".

P. & O. Line (Indian Services)

Ports of Call:—

The steamers of this company sail from London to Bombay every Friday, carrying the mails, and calling at Gibraltar, Marseilles, Port Said, and Aden *en route.* From London to Calcutta every alternate Saturday by intermediate steamer usually carrying passengers, and calling at Malta, Port Said, Aden, and Colombo. In the autumn, some of these steamers omit Malta and call instead at Marseilles to embark passengers. From London

to Colombo every week by mail and intermediate steamer alternately, calling at Mediterranean ports, Port Said, and Aden.

Length of Voyage:—

London to Bombay, 21 days; London to Calcutta, 32 days; London to Colombo, 22 days.

Connecting Services:—

Every alternate week, passengers for Bombay proceed from London and Marseilles in the Australian ship, and transfer at Aden to the Bombay packet in a steam launch provided by the company. *Kurrachee.* — A steamer for Kurrachee leaves Bombay as soon as the mails have been transferred. The usual time occupied by these connecting packets on the voyage from Bombay to Kurrachee is about 33 hours. *Persian Gulf and Indian Coast Ports.*—There are usually bi-weekly departures from Bombay to the Persian Gulf, and frequent sailings to the coast ports.

Railway Connections.—The P. & O. Company also have connections by rail with *Madras*, via Bombay; *Southern India*, via Colombo and Tuticorin (the service from Colombo to Tuticorin being maintained by the steamers of the British India Company), thence rail; *Rangoon*, via Bombay and Madras or Calcutta by rail, thence to Rangoon by weekly steamers of the British India Company; Chittagong and Burma, via Calcutta (by sea). For further particulars of the P. & O. Line see under "Australian Ports", "Straits, China, and Japan Ports".

Strick Line

This company maintains a direct service to the Persian Gulf.

Head Offices:—London and Manchester.

Fleet:—

The fleet comprises twenty-two steamers, including the following:—

Afghanistan	7250 tons.
Gulistan	7250 „
Gorjistan	7150 „
Turkistan	7150 „

Ports of Call:—

Steamers are dispatched at regular intervals from London, Manchester, and Marseilles to Bushire, Bussorah, and (by transhipment) Bagdad.

Wilson Line

This line, which is so intimately connected with the port of Hull, is chiefly known for its services to all parts of Northern Europe. But, in addition to these, it carries on cargo services to all parts of the world.

Head Offices:—Hull.

Fleet:—

The fleet consists of almost one hundred vessels, which include the following:—

Toronto (twin-screw) ...	6035 tons.
Eskimo „ ...	3140 „
Marengo „ ...	4832 „
Othello „ ...	5059 „
Bayardo „ ...	3570 „

Services:—

Passenger Services.—From Hull to Norwegian and Swedish ports. Hull and London to St. Petersburg and Riga. Hull to Boston and New York.

Cargo Services.—These services amongst others are maintained: Hull to Bombay and Kurrachee (fortnightly). Hull to Adelaide, Melbourne, and Sydney (monthly). Middlesbrough to Bombay and Kurrachee (fortnightly).

Other Services:—

Services are also carried on in conjunction with the United Steamship Co. of Copenhagen, and Wilsons and North-Eastern Railway Shipping Company, Ltd.

Austrian Lloyd Steam Navigation Company

Maintaining several services to various parts of the world, this company ranks as the most important Austrian shipping concern.

Head Office:—

Trieste. Offices in London.

Fleet:—

The company possess a fleet of about seventy vessels of various tonnage up to 8000 tons. The following are among the largest:—

Wien	8000 tons.
Hilonan	8000 „
Austria	7588 „
Nippon	6350 „

Ports of Call:—

The steamers of the company maintain the following services: *India and the Far East.*—Trieste to Bombay, calling at Port Said, Suez, and Aden, and sailing every two weeks from Trieste. Trieste to Calcutta, calling at Port Said, Suez, Port Sudan, Djibouti, Aden, Kurrachee, Colombo, Madras, and Rangoon, omitting Kurrachee on the homeward journey; two services a month. Trieste to Kobe, calling at Port Said, Suez, Aden, Bombay, Colombo, Penang, Singapore, Hong-Kong, Shanghai, and Yokohama; omitting Yokohama in favour of Moji, and including Calcutta and Kurrachee on the homeward voyage; one service a month.

Mediterranean Service. — Express service from Trieste to Alexandria every Thursday, via Brindisi. Express service from Trieste to Constantinople every Tuesday, calling at Brindisi, Corfu, Patras, and Piræus. Services from Trieste to Alexandria and Syria, via Gravosa and Brindisi. *Greek and Oriental Line*, and to Constantinople from the Piræus, via Smyrna. *Thessalian Line*, calling at Albanian ports as well as the principal ports on the Thessalian coast. Services are also run to the Black Sea in conjunction with the Constantinople Express service, a boat starting every Friday for the ports of the Black Sea, Burgas, Varna, and Galatz, and every second Saturday for Costanza and Odessa; besides a weekly steamer to Trebizond and Batum. *Adriatic Service.*—Three express services a week from Trieste to Cattaro, calling at Pola, Lussinpiccolo, Zara, Spalato, Lesina, Gravosa, and Castelnuoir. *Trieste to Venice.* - During the summer (April to October), services every night of the week, and by day every Wednesday.

Length of Voyage:—

Trieste to Bombay, 16 days; Trieste to Calcutta, 44 days; Trieste to Kobe, 69 days. Trieste to Alexandria, 4 to 5 days; Trieste to Constantinople, 6½ days; Trieste to Callan, 1 day.

Messageries Maritimes

This company maintains a service from Marseilles to Bombay, calling at Port Said, Suez, and Aden *en route*. The service to Australia and New Caledonia also calls at Bombay.

For further particulars of this company see under "Straits, China, and Japan Ports".

Società Nazionale di Servizi Marittimi

This Italian company maintains a large number of services, of which the principal are to East India and China.

Head Offices:—

Rome and Genoa. London agents, A. Laming & Co.

Fleet:—

The fleet comprises sixty-three vessels, ranging from 4000 tons downwards.

Services:—

Genoa to Bombay (monthly), calling at Naples, Messina, Catania, Port Said, Suez, and Aden. Bombay to Hong-Kong (monthly), calling at Singapore. Genoa to Zanzibar, calling at Mediterranean ports *en route*, and Port Sudan, Massowah, and Aden, every four weeks. Massowah to Aden, calling at Assab, weekly.

There are also a number of services to Mediterranean and Egyptian ports.

Venetian Steam Navigation Company

This company maintains services between Venice and Calcutta.

Head Office:—

Venice. London agents, L. de Rin & Mack.

Ports of Call:—

The service is a monthly one. Steamers leave Venice and call at Ancona, Bari, Brindisi, and Catania, thence to Port Said, Suez, Massowah, Aden, Bombay, Colombo, Madras, and Calcutta, with option of calling at Kurrachee.

Asiatic Steam Navigation Company, Ltd.

The services of this company start from Calcutta, which is the headquarters of the line.

Offices:—

Calcutta, Bombay, Liverpool.

Fleet:—

The fleet comprises sixteen steamers, including the following:—

Rajah	... ...	5662 tons.
Ranee	... ...	5660 „
Rajput	... ...	5628 „
Pasha	... ...	5930 „
Pundit	... ...	5917 „

Services:—Six services are maintained.

1. Calcutta to Bombay, calling at Coconada, Masulipatam, Madras, Pondicherry, Cuddalore, Porto Novo, Tirumalwassal, Karikal, Negapatam, Galle, Colombo, Tuticorin, Alleppey, Cochin, Calicut, Tellicherry, and Cannamore. On the return voyage the steamers call at Visagapatam and Bimlipatam.

2. Calcutta to Rangoon and back to Calcutta, calling at Chittagong both ways.

3. Calcutta to Moulmein and *vice versa*, calling at Rangoon both ways.

4. Calcutta to Java, calling at Rangoon, Sabang, Padang, Batavia, Semarang, and Sourabaya. On the return journey the steamers call at Pasoeroean, Banjoewangi, Pekalongan, Cheribon, in addition, but omit Padang.

5. Java to Colombo, Bombay, and Kurrachee.

6. *Andaman Mail Service.*—Calcutta to Port Blair, Rangoon, and Madras.

STRAITS, CHINA, AND JAPAN PORTS

The services of the Peninsular & Oriental Steam Navigation Company to the Far East are those which first attract the attention of travellers to these ports. In addition to this line, mention may be made of the Shire Line, which formerly was run by the Royal Mail Steam Packet Company and Messrs. T. & J. Brocklebank, Ltd., jointly, but is now entirely under the control of the former company. Joint services are maintained by the Shire and Glen lines, the latter being owned by Messrs. Elder, Dempster, & Co., Ltd.; and the Royal Mail Steam Packet Company, having a large interest in the latter, may now be said to control the combined service. The Nippon Yusen Kaisha (the Japanese Mail Line) maintains services to this country from Japan and China and *vice versa*, and there are other important lines having services to the Far East. The Royal Packet Steam Navigation Company has a large number of services in connection with steamship companies from European ports, and their vessels call at all ports of the Straits, Java, Sumatra, Borneo, &c.

Austrian Lloyd Steam Navigation Company

Every month a steamer of this company sails to the Far East from Trieste, calling at Port Said, Suez, Aden, Bombay, Colombo, Penang, Singapore, Hong-Kong, Shanghai, and Yokohama; omitting Yokohama and calling at Moji, Calcutta, and Kurrachee on the homeward voyage.

For further particulars of this company see under "Indian Ports".

Canadian Pacific Railway (China and Japan Services)

The steamers of this company sail from Vancouver to Yokohama, Kobe, Nagasaki, Shanghai, and Hong-Kong.

For full particulars of this company see under "Canadian Ports".

Chargeurs Réunis

A monthly service to India and China is maintained by this company. Steamers leave Dunkirk, Havre, Bordeaux, and Marseilles, taking passengers and goods for Colombo, Singapore, Saigon, Tourane, and Haiphong direct, and by transhipment for Bangkok, Pnom-Penh, and Hanöi.

For further particulars see under "South American Ports" and "African Ports".

Compania Trasatlantica de Barcelona

This line carries the postal service from Barcelona to the Antilles and Central America, transshipping at Colon for North and South Pacific ports.

Head Offices:—

Barcelona. The general agents of the company are Larrinaga & Co., Liverpool. The London agents are Wainwright Bros. & Co.

Fleet:—

The company's services are maintained by steamers fitted with all the latest improvements, having first-class passenger accommodation.

Ports of Call:—

On the Philippine Islands service the steamers leave Liverpool every four weeks for Manila, Iloilo, Cebu, Cavite, Zamboanga, Singapore, and the Straits Settlements (via Suez Canal), calling at Corunna, Vigo, Cadiz, Cartagena, Barcelona, and Port Said. There is also a service from Barcelona and Cadiz for Las Palmas, Teneriffe, Santa Cruz, San Juan, Havana, Port Limon, Colon, Sabanilla, Curaçao, Porto Cabello, and La Guayra. Also from Spain to New York, Havana, and Vera Cruz.

The East Asiatic Company, Ltd.

In addition to the West India Line service (see particulars under "West Indian and Central American Ports") this company maintains the following regular services, viz.:—

Four-weekly from Copenhagen, Middlesbrough, Antwerp, and Genoa, direct to Port Said, Colombo, Penang, Singapore, and Bangkok. Four-weekly from Copenhagen, Gothenburg, and Antwerp to Singapore, Hong-Kong, Shanghai, Yokohama, Kobe, Moji, Dalny, and Hankow.

Length of Voyage:—

From Genoa to Bangkok is thirty-seven days. By the China and Japan service, passengers are not carried.

Glen Line

Head Office:—

The Glen Line (M'Gregor, Gow, & Co., Ltd.), London, and agencies in various important centres throughout the world.

Fleet:—

The steamers belonging to this company are as follows:—

Glenfarg	6500 tons.
Glenlochy	7000 „
Glenturret	7000 „
Gleneak	5000 „
Glenroy	7000 „
Glenstrae	7000 „

Ports of Call:—

The steamers sail from the Royal Albert Docks, London, to Yokohama, calling *en route* at Port Said, Penang, Port Swettenham, Singapore, Hong-Kong, Shanghai, Nagasaki, Kobe, and Yokohama, usually touching at Vladivostok or Dalny on the home passage. The steamers leave once a month, and afford excellent accommodation for passengers going to the East, and are noted for their cool cabins, as all state-rooms are on deck.

Messageries Maritimes

This is one of the oldest French steamship lines in existence, and affords every facility for passengers from France to the Levant, India, Far East, Madagascar, East Africa, Brazil, and River Plate. It is under contract with the French Government to carry the mails to these places.

Head Office:—

Paris. Offices in London, Marseilles, and Bordeaux.

Ports of Call:—

The services maintained by the sixty five steamers of this line are as follows:—

Indian, China, and Japan Service.—Marseilles to Bombay direct. Marseilles to Port Said, Djibouti, Colombo, Singapore, Saigon, Hong-Kong, Shanghai, Kobe (Hiogo), Yokohama. Marseilles to Port Said, Aden, Colombo, Singapore, Saigon, Hong-Kong, Shanghai, Kobe, and Yokohama. Both lines call at Suez homewards. There are branch lines from Colombo to Pondicherry and Calcutta; Singapore to Batavia; Saigon to Tonquin ports; and Saigon to Singapore. An intermediate service is run from Dunkirk, calling at Havre, Marseilles, Port Said, Suez, Colombo, Saigon, Tourane, Haiphong; and from Antwerp, calling at Marseilles, Port Said, Suez, Djibouti, Colombo, Yokohama, Kobe (Hiogo), Moji, Shanghai.

Australian and New Caledonian Service. See under "Australian Ports".

Indian Ocean Services. See under "Indian Ports".

Brazil and River Plate Services. See under "South American Ports".

Length of Voyage:—

The following figures give in days the time occupied in the principal voyages: Marseilles to Bombay, 15 days; Marseilles to Colombo, 16 days; to Yokohama, 38 days; to Sydney, 50 days, and Noumea, four days later; to Mauritius, 41 days.

Embarkation:—

At Marseilles, passengers embark at the Docks of La Joliette.

Nederland Royal Mail Line

This company maintains a regular fortnightly mail service to Egypt, Colombo, the Straits, and Java.

Head Office:—

Amsterdam. London agent, H. V. Elkins.

Fleet:—

With cargo steamers, the fleet consists of twenty-eight vessels, including the following among the mail boats:—

Prinses Juliana	8300 tons.
Koningin der Nederlanden	8300 „
Rembrandt	5860 „
Grotius	5858 „

Ports of Call:—

Sailing from Amsterdam three days earlier, the steamers leave Southampton every alternate Tuesday, and touch at the following ports: Lisbon, Tangier, Algiers, Genoa, Port Said, Suez, Colombo, Sabang, Singapore, and Batavia.

Length of Voyage:—

The time occupied by the steamers to Port Said is 17 days, and from Port Said to Batavia 19 days, or 36 days from Amsterdam to Batavia direct, and three days less from Southampton.

Embarkation:—

Passengers from Amsterdam embark at the Ykade on Saturdays at 12.30 p.m., while those connecting at Southampton embark on the following Tuesday at 1 p.m. at the Extension Quay.

Connecting Services:—

The steamers of this line connect with those of the Royal Packet Steam Navigation Company for all ports in Dutch East Indian Archipelago and Australia, and with steamers to China and Japan.

Nippon Yusen Kaisha

In 1871, when the whole public service of Japan was being organized on Western lines, the Government took under its control a private steamship company which had been formed some years

before. This was the chief of the parent companies of the Nippon Yusen Kaisha, which was definitely consolidated in 1885. Since that date the history of the company has been one of rapid and steady progress.

Head Office in Britain:—London.

Fleet:—

The fleet of the company consists of ninety-five steamers, with a total tonnage of 340,000 tons, among the largest being—

Atsuta Maru	... ...	8523 tons.
Hirano Maru	... ...	8520 „
Kamo Maru	... ...	8524 „
Kitano Maru	... ...	8512 „
Mishuna Maru	... ...	8500 „
Migazaki Maru	... ...	8500 „

Ports of Call:—

The following services are maintained:—

European Line.—Fortnightly from Middlesbrough, Antwerp, London, and Marseilles to Japan, calling at Port Said, Colombo, Singapore, Hong-Kong, Kobe, and Yokohama. *Australian Line.*—From the last-named port there is a monthly service to Melbourne by the Australian Line, calling at Kobe, Moji, Nagasaki, Hong-Kong, Manila, Thursday Island, Townsville, Brisbane, and Sydney. *American Line.*—Fortnightly service between Hong-Kong, Shanghai, Japan ports, Victoria, and Seattle, connecting at Seattle with the Great Northern or Northern Pacific Railway for overland American points. *Other Foreign Lines.*—Yokohama to North China (twice a month), Yokohama to Shanghai (twice a week), Kobe to Bombay (every thirteen days), Kobe to Korea and North China (every four weeks), Kobe to North China (weekly), and Kobe to Vladivostok (every four weeks).

Home Lines.—The company runs numerous coasting services extending to all the principal ports in Japan; also from Kobe to Keelung, and Yokohama to Bonin Islands, &c.

Length of Voyage:—

The time occupied by the voyage from London to Yokohama is 45 days; from Yokohama to Melbourne, 37 days; from Seattle to Yokohama, 16 days.

Embarkation:—

Passengers from London proceed to the Royal Albert Docks. Passengers may join the steamers at Marseilles, and for this purpose may leave London not later than the Friday following the steamers sailing from London.

Connecting Services:—

Passengers are enabled to travel from this country or the Continent to Japan and China, via America and Canada, as follows: To an Atlantic or Canadian port by any line of steamers sailing from London; thence by rail across the American continent to Seattle, where connection is made with the Nippon Yusen Kaisha service from that port to Kobe, and thence by other boats of the company to Shanghai and Hong-Kong. Owing to special arrangements with the following companies, round-the-world tours can be made through the Nippon Yusen Kaisha:—

The Aberdeen Line.
The P. & O. Branch Line.
The New Zealand Shipping Company.
The Shaw, Savill, & Albion Line.
P. & O. Steam Navigation Company.
Orient Line.
Messageries Maritimes.
North German Lloyd Line.
The Canadian-Australian Line.

North German Lloyd Steamship Company (Straits, China, and Japan Services)

There are sailings every fortnight by this line, alternately from Bremerhaven and Hamburg, via Antwerp, Southampton, Gibraltar, Algiers, Genoa, Naples, Port Said, Suez, Aden, Colombo, Penang, Singapore, to Hong-Kong, Shanghai, Nagasaki, Hiogo, and Yokohama. The steamers sailing from Bremerhaven also call at Rotterdam. For further particulars of this company see under "United States Ports".

Pacific Mail Steamship Company and Toyo Kisen Kaisha

These two companies maintain jointly a service from San Francisco to China and Japan, via Honolulu. They have special arrangements with steamship companies in Great Britain whose vessels cross the Atlantic, by which passengers may take through tickets via New York, Boston, or Philadelphia, thence by rail to San Francisco.

Head Office:—

San Francisco. London agent, R. Falck.

Fleet:—

The Express service is maintained by the following first-class steamers:—

Manchuria (twin-screw)	... ...	27,000 tons.
Mongolia „	... ...	27,000 „
Korea „	... ...	18,000 „
Siberia „	... ...	18,000 „
Tenyo Maru (triple-screw turbine)		21,000 „
Chiyo Maru „ „		21,000 „
Nippon Maru (twin-screw)	...	10,000 „

Ports of Call:—

The vessels leave San Francisco about every seven days for Japan and China, calling at Honolulu, Yokohama, Kobe (Hiogo), Nagasaki, Shanghai, and Hong-Kong, but one steamer in four calls at Manila and not at Shanghai.

Round-the-World Tours:—

By arrangement with the following steamship companies, travellers can book for trips round the world: P. & O. Steam Navigation Company; Norddeutscher Lloyd; Messageries Maritimes; Shaw, Savill, & Albion Company; New Zealand Shipping Company; Nederland Royal Mail Line; Rotterdam Lloyd Royal Mail Line; Orient; Aberdeen Line.

P. & O. Line (Straits, China, and Japan Services)

Ports of Call:—

The steamers of this company maintain two services—

1. From London by mail steamers every alternate Friday to Penang, Singapore, Hong-Kong, and Shanghai, calling at Gibraltar, Marseilles, Egypt, Aden, and Colombo. Passengers by mail steamer usually transfer at Colombo to another of the company's steamers sailing direct to Penang, Singapore, Hong-Kong, and Shanghai; and passengers for Japan generally proceed from Hong-Kong or Shanghai by another vessel.

2. From London every alternate Saturday by intermediate through steamers without transhipment, calling at Malta and Port Said.

Connecting Services:—

From *Singapore* by the steamers of the Straits Steamship Company to Malacca, Port Dickson, Port Swethenham, and Telok Anson; to Java ports by steamers of the Royal Packet Steam Navigation Company.

From *Hong-Kong*, passenger steamers sail to local ports as follows: Macao, Canton, Saijon, Manila, Iloilo, Cebu, Paphoi, Hoikow, Haiphong, Hanoi, Swatow, Amoy, Foochow, Tamsui, Taimanfoo. From *Shanghai*, local steamers proceed to Chinkiang, Nanking, Wuhu, Kuikiang, Hankow, Wei-hai-Wei, Chefoo, Tientsin, Chin-Wan-Foo. For further particulars of the P. & O. Line see under "Australian Ports" and "Indian Ports".

Rotterdam Lloyd

This company maintains a fortnightly mail service to Egypt, Ceylon, Sumatra, and Java ports.

Head Office:—

Ruys & Co., Rotterdam. London agents, Escombe, M'Grath, & Co.

Fleet:—

In maintaining their passenger and cargo services the company own twenty-one steamers, of which the following comprise the mail and passenger fleet:—

Goentoer (twin-screw) ...	5500 tons.
Sindoro " ...	5000 "
Tabanan ...	5400 "
Tambora ...	5600 "
Rindjani ...	4500 "
Ophir ...	4500 "
Kawi ...	4500 "
Wilis ...	4500 "

Ports of Call:—

The steamers leave Rotterdam every alternate Saturday at noon, and Southampton the following Tuesday, and call at Lisbon, Tangier, Gibraltar, Marseilles, Port Said, Suez, Aden, Colombo, Padang, Batavia, Samarang, and Sourabaya.

Length of Voyage:—

The voyage from Marseilles to Batavia occupies about 23 to 24 days, that from Rotterdam to Marseilles 11 days, and *vice versa* 7 days.

Embarkation:—

Passengers from Rotterdam embark from the Lloyd Quay. Those embarking at Southampton travel by the London and South-Western Railway train from Waterloo. Special arrangements are made for the convenience of passengers. Full particulars can be obtained from the London agents.

Connecting Services:—

In conjunction with the Nederland Royal Mail Line this company arranges for "round" trips from Colombo and back, via Sabang, Singapore, Batavia, and Padang, or *vice versa*.

Through tickets are issued to all parts in East Indian Archipelago, and to Australia, Straits, China, and Japan in connection with the regular services of the Royal Packet Steam Navigation Company, Batavia.

Shire Line

This line runs a service fortnightly for the Straits, China, and Japan.

Head Office:—London.

Ports of Call:—

The steamers leave London for Port Said, Suez, Colombo, Penang, Singapore, Hong-Kong, Shanghai, Nagasaki, Kobe, Yokohama.

Length of Voyage:—

From London to Colombo, 28 days; Penang, 34 days; Singapore, 35½ days; Hong-Kong, 41

days; Shanghai, 46 days; Nagasaki, 48 days; Kobe, 50 days; Yokohama, 51½ days. Round voyage, about five months.

Royal Packet Steam Navigation Company

This company maintains a royal mail service, under contract with the Netherlands India Government, between Singapore, Batavia, Sourabaya, and Macassar, and all ports of Java, Sumatra, Borneo, &c., and to Australia.

Head Offices:—Amsterdam and Batavia.

Fleet:—

The fleet comprises seventy steamers, which are engaged in the various services.

Ports of Call:—

By means of forty-six regular services, two hundred and fifty-nine ports throughout the Netherlands India Archipelago are connected with all parts of the world. The company works in conjunction with the Nederland Royal Mail, the Rotterdam Lloyd, the North German Lloyd, and the P. & O. Steam Navigation Company, which bring passengers from and to Europe, and connect with the services of the Royal Packet Steam Navigation Company.

CHAPTER II

CARRIAGE BY ROAD

Introductory—The Carrier—Carrier Business—Collection, Conveyance, and Distribution of Goods.

INTRODUCTORY

The carrier was the first of commercial agents, the primary medium for the exchange of commodities; he has therefore a very ancient and honourable record of service to mankind. A primitive community, low down in the scale of life, may be self-contained and self-sustaining; but whenever a tribe of people rises to the desire for intercourse with its neighbours, or as soon as the productive powers of the community exceed the supply of the barest necessities, so soon is commerce begun and the carrier called into service.

Division of Labour

Commerce may be maintained without an agent specifically set apart for the office of carrier. The division-of-labour principle takes time to develop, and the employment of a carrier in commerce involves division of labour. The weaver may carry his cloth to the cloth merchant, and the potter his wares to the fair or bazaar, and they may continue the practice for a long period before either perceives the economy of employing someone else to perform the service of conveyance for both. At one time or another, however, in every community which has come to any degree of civilization, it has dawned upon weavers, potters, and other producers of commodities that they could employ a chosen man or class of men to convey their goods to market, at small cost to each, and with great economy in time and labour.

The economizing function of the carrier is an important factor in commercial development. Say that the place to which the productions of a small community have to be conveyed is distant a journey of ten hours. If ten producers weekly trudge the distance, the village spends 200 hours per week in the work of conveyance. Suppose, however, that one very strong man undertakes to carry the commodities to market and bring back goods in exchange, by going to and fro three times a week, the economy will be considerable and the service much improved. The saving to the community is 140 hours per week, and there is a regular service three times a week. Such economy, combined with facility, must have a very strong effect upon the whole position of the community. Production is increased, commerce quickened, and wealth added to the common stock.

Employment of Animals

We have suggested that the first carriers were independent and voluntary agents, and that they used only their own bodily strength. Nothing is more likely. That kind of carrier survives to this day, not in African wilds alone, but at railway stations, cab stands, and other places in the very heart of the highest civilization.

Employment of animals as aids to human labour in carrying, however, is a practice of prehistoric date. Over that vast region of the old world between Samarkand and Timbuktu the camel seems to have been the chosen beast of burden for more than ten thousand years, keeping up lines of traffic across trackless steppe and sandy desert. To convey commodities over the high passes of the Andes the Peruvians have employed the llama. Under conditions similar in many ways the yak is the beast of burden for the Tibetans and the Himalayan tribes. On the other hand, the mountaineers of Europe employ the mule. In Green-

land the conveyor of merchandise is the dog, and in Lapland the reindeer. Elephants, bulls, goats, and almost every animal capable of being bred in domestic captivity and of sufficient strength, may be said to have been used as a carrier at some time or in some place. In Europe and Europeanized America the horse has long been regarded as the animal fittest for the carrier's purposes.

Roads

If carriage of goods is to proceed swiftly and safely, roads are indispensable. The Romans knew that fact well, and built straight roads through every conquered province. The first-built British roads and stone bridges were made by the Romans. From the fragments which have survived nearly two thousand years of traffic we can infer the character of those roads and the purposes for which they were constructed. The Roman roads run straight up hill and down dale, making scarcely a deviation for irregularities on the surface of the land. At many places the gradients are very steep, rendering wheeled traffic impossible. Though the Romans used wheeled vehicles at that time, it appears to be almost certain that the roads in Britain were built for pack-horse use only.

Other roads and paths than those of Roman origin, and bearing marks of equal antiquity, run through the country, forming a wide network of passages for pedestrians, horses, cattle, and carriages. Traffic and customary use have made the vast majority of the highways in England. From every town, market, and parish green, roads branch out and stretch in various directions.

Roads and highways form a subject of extreme complexity; but, in general, there are said to be four kinds of highway: (1) A footpath, where no horse or wheeled traffic is allowed; (2) a bridle path, on which persons may walk or ride; (3) a pack-horse and drove road, along which loaded animals and cattle may be led or driven; (4) the public road, open to vehicles, animals, and all kinds of traffic, with side paths for pedestrians. (See Part III, Chapters XXII and XXIII.)

Towards the close of the seventeenth century English industrial genius began to declare itself, and inaugurated that change which has since been named the industrial revolution. Agriculture, formerly the main occupation of the people, gradually declined in relative importance, and manufacture and commerce absorbed the energy of the nation. Workshops were expanded, labour-saving machinery was invented and employed, huge factories arose, and traffic increased. Then the state of the highways, formerly neglected, became of great importance. Even so late as 1736 the roads to and from London were in a terrible condition—rough and irregular in summer, and almost impassable in winter, or after heavy rains. Public authority being neglectful, private enterprise stepped in. Roads were built by enterprising individuals and companies, and tolls were exacted from the users of them. This mode of action, however, was at once perceived to be contrary to public policy. A better method was pursued by the formation of companies composed of the local landowners, who obtained Parliamentary powers to form the roads required by compulsory purchase of land, and to erect toll bars at certain points and collect fees for the use of the roads. Commissioners or trustees were appointed to manage the roads on behalf of the proprietors. In 1773 the first general Turnpike Act was passed, which brought some regularity into the new system. Subsequent Acts of Parliament gradually regularized the turnpikes, until general tolls were practically abolished, and authority was transferred to the County and District Councils. In 1909, a Road Board, with funds from national sources, was created to improve facilities for road traffic. The Board may undertake new roads or make grants in aid to local authorities.

Canals

Traffic, the servant of industry and commerce, turned itself in another direction for outlet. Navigation of rivers has afforded easy and cheap inland carriage during countless ages; but the rivers of Great Britain are not navigable for any distance—fords and shallows interrupt the courses of our largest rivers. While much energy was being spent on improving the highways, the idea entered the mind of the Duke of Bridgewater, who possessed rich coal mines in Lancashire, that artificial waterways, or canals, might be constructed for carriage of coal and other bulky and heavy materials. Between 1753 and 1760 the duke promoted Bills in Parliament to obtain facilities for constructing a canal from Worsley Collieries to Manchester. Having obtained powers, he employed James Brindley, the engineer, to construct the canals, which he did with the rapidity and thorough efficiency now regarded as his chief title to fame. (See also Chapter IV of this part.)

The success of the Bridgewater Canal stimulated enterprise in canal construction, and the Grand Junction Canal, Leeds and Liverpool Canal, and other smaller waterways were quickly planned and built. Within thirty years, canals of the aggregate length of 400 miles were made, connecting most of the important rivers with each other on both sides of the island.

For a time the road carriers resented the rivalry of the canals, but the wiser among them made terms with the new agent of traffic, and utilized it to their own advantage.

Railways

Scarcely had the canals established for themselves a secure place in commercial economy when another and greater agent began to take shape and enter into the business of carrying goods. Begun as a mere tram line, with wagons drawn by horses, that great instrument of commerce we call the railway, developed by the locomotive steam engine, rapidly spread a network of lines all over the country, connecting all the principal towns with each other and adding enormously to the traffic facilities of the nation. (See Chapter III of this Part.) Against this great rival the road carriers had no resource, and it seemed to many of them that the railways involved ruin to their trade. The facts have proved the opposite. Even to-day, when the railway penetrates every district and trains run with a speed undreamt of in its early days, the trade of the carrier is more important and prosperous than ever.

Motor Cars

Still another carrying agent remains to be noted. Railways are costly to build and maintain, and it was the dream of even the early inventors of locomotives that an engine could be built which would run on the common highway. Many attempts were made, but for nearly fifty years the problem seemed to present difficulties impossible to solve. Meanwhile, however, correlative agents were coming into action. The bicycle and tricycle showed that light road vehicles capable of high speed could be devised. Then an ingenious Continental inventor hit on the idea of the petrol explosive engine. Here was a light and powerful motor, and the application of it to propulsion was merely a question of mechanics. For a time it seemed that the mechanical difficulties were too great, and though motor vehicles were constructed and employed, they were notoriously unreliable. Thanks, however, to the French genius for delicate mechanical construction, the main problems were solved, and the motor became an accepted agent of traffic.

Petrol, coal gas, electricity, and steam are competing for mastery in the field of road-motor employment, and the lines of selection are not yet wholly clear; but it seems inevitable that the horse, so long the faithful and patient servant of the carrying trade, will be almost wholly displaced by mechanical traction agents. Swift, tireless, and always under control, the motor is the more efficient agent, and efforts are being continuously made to reduce the cost of its use and maintenance. (See also Part III, Chapter XXIII.)

Distributing Agents

From small and feeble beginnings the carrying trade has grown to vast dimensions and incalculable power. Day and night the noise of its traffic never ceases. All through the night goods trains clank and rumble along the railway lines, and in the lighted depots and goods sheds men are continually engaged in sorting, packing, and loading the piles of merchandise. At the central warehouses and numerous branch depots of the numerous carrying agencies the same activity prevails. In the early morning the light vans and motor vehicles begin to rattle through the streets, bearing parcels and packages from the various centres to destinations situated at all distances and in every direction. All this hurricane activity is organized and directed to the one purpose of serving the everyday needs of commerce and the wishes of the simplest and humblest member of the community.

THE CARRIER

Like many great individuals, the carrier was born and reared in the village. Dwellers in towns, before the facilities of communication enlarged desire for change and exchange, were mostly content to take their daily supplies from near at hand: they had no cause either to send their products far or to call their supplies from a distance. With the villager the case was wholly different. He found no purchaser for his products among his neighbours, and the needs of all were larger than could be satisfied by local produce. So the carrier became an integral part of the village social economy, and he was as much an institution as the village green or the parish church.

Probably beginning business with a single pack horse, on the back of which he slung the packages of his customers, the carrier later on harnessed the horse to a heavy wagon. Many carriers have never got above the single horse and cart, and today there are numbers in that position. They serve the simple needs of a rural district into which railways have not penetrated, or pick up

a precarious living by filling up the gaps left by the larger carrying agencies.

The simplest forms of things illustrate most clearly their basic principles. Let us follow this old-world carrier on his round. He starts with the dawn, and yokes his horse to the heavy wagon, into which he places the numerous small parcels brought to his house the evening before. Then he sets off along the rough road, making for a farmhouse on the outskirts of the parish. Here he collects eggs and young poultry. Carefully stowing the goods, the carrier takes his instructions as to rates of prices and what articles are to be brought back from the market town, and departs. His next destination may be a small collection of houses inhabited chiefly by cottar weavers and farm labourers. Here the carrier takes on a miscellaneous cargo. Passing from house to house he receives goods or orders, and at last resumes the road. Farther on the carrier enters the street of another village. Here are two or three shops, and his private customers are numerous. Perhaps to the shopkeepers he hands over a small portion of the goods already collected, and takes from them a few empties and some orders to the wholesalers in the market town. Having effected the exchanges entrusted to him, and lifted the commodities to be conveyed to market, the carrier resumes his way. By about ten o'clock he is in the market square of the town, and begins his round of the streets. Handing over poultry, eggs, cloth, hosiery, and other country produce to the consignees, the carrier also takes in goods of many kinds for distribution throughout the locality. Having completed the round of merchants and dealers, he rests and feeds himself and his horse and returns the road he came, delivering goods and messages by the way. Usually the carrier had two or three routes, each one of which he traversed two or three times a week.

A carrier might extend his business in various ways. In this, as in all other business enterprises, energy, ability, fortune, accident, and the numerous circumstances which act on human life played their parts. The weak, slow, or phlegmatic individual followed the same old round, letting his sons and young neighbours pass out to other employments instead of enlisting their fresh powers in the service of his own business. The strong, energetic man strove to widen the scope of his rounds, demanded the help of the ablest among the young he could find, trained his sons to the work, and built up an organized business from small beginnings.

CARRIER BUSINESS

The history of commerce is largely the record of the enterprise of particular commercial firms. Great business houses rise and fall, and the record is seldom continuous; but in the carrier business we have one British firm whose record is continuous for over three hundred years, and may therefore be taken as a summary of the history of the trade.

Three centuries ago, one Thomas Pickford took up the business of conveying goods on pack horses between London and the surrounding towns. He appears to have been a pioneer, for he was among the first to use the covered wagon instead of the pack horse for short journeys. By this foresight and energy the trade of the firm grew, and extended its operations far north of the capital. We have curious evidence of this, linking the record of the firm with that of another firm equally famous in quite another line of business.

"Few people know," say Messrs. Pickford & Co., "that the founder of the colossal business of Messrs. Bass & Co., the famous brewers, was at one time our rival on a small scale. About the year 1723 Bass was a carrier between Burton and an outlying district. In his spare time he brewed an excellent ale, which he sold to those to whom he delivered parcels. In the course of time he found that, by devoting all his energies to the beer, he could make a better thing of it than he could as a carrier, and he sold his carts and horses to our firm."

Stretching over such a distance of time the record is naturally obscure, and we cannot say exactly when the firm's operations branched from the Great North Road to the west and took in Manchester and Liverpool. From an advertisement published on the front page of *Prescott's Journal* in the year 1777, dated, curiously enough, 1776, we know that Matthew Pickford, most probably a grandson of the founder, undertook to convey goods and passengers from Manchester to London in the space of four days and a half.

It was just about that time Matthew Pickford encountered the rivalry of the canals. Instead of opposing the new carrying agent, he boldly allied himself with it, and within a short time the Pickford barges were running on the new waterways throughout the country.

To the traveller, from the time of Abraham downwards, luggage has always been a great trouble. Even to-day the passenger from one part of the country to another is not without his

anxieties on that account; but in the time when the mail coach was the main conveyance the difficulties caused by luggage were harassing in the extreme. Ever ready to assist, Messrs. Pickford established a special service in conjunction with the mail coaches, taking over their baggage from the passengers as they came to begin their journeys.

When the railways came, with their ominous menace to the road-carrying interest, Messrs. Pickford continued their friendly policy towards innovating agents. With remarkable foresight they perceived that the rivalry between the road carriers and the railways was more apparent than real, and that the two interests might combine with mutual advantage. To quote again from Messrs. Pickford's own account:

"The great crisis in the history of our firm was the advent of the railway. Most carriers looked with fear and distrust upon a new and powerful rival of their business, and, in view of the mighty achievements of the 'steam horse', their attitude may well seem natural. But the then proprietors of Pickfords took a bold step. Instead of opposing, they welcomed the newcomer. . . . The alliance with the railway companies was of immense advantage to the railways, whose whole business was new, and who found in the goods department a number of difficulties that were none the less vital because they were made up of an incalculable number of trifling details. Pickfords, with their long experience and their perfect mastery of what is probably the most difficult branch of bookkeeping, came to the rescue. They lent their clerks to the railway companies, explained their system of keeping accounts,[1] introduced their own forms and returns, and, in short, taught them the carrying trade. . . . Our firm built the first goods station erected in London. This station, which was at Camden Town, was subsequently sold to the London and Birmingham Railway Company, now better known as the London and North-Western Railway Company."

COLLECTION, CONVEYANCE, AND DISTRIBUTION OF GOODS

Commerce consists of two movements—collection and distribution. Goods are gathered into one depot, store, warehouse, or shop, and thence are distributed to consumers. But in our complex civilization there are many counter movements and exchanges of commodities. Producers send goods to merchants, and merchants supply goods to consumers, who may or may not be producers. Private persons, also, desire articles to be collected from them and distributed to other individuals or to business firms. The carrier is therefore a general public servant, and not merely the agent of what we strictly term commerce.

Collection of Goods

It is in his office as general public agent of conveyance that the carrier has found his greatest difficulty in organization. The problem is to devise a system by which the utmost convenience to the public is combined with economy in collection. Hitherto no perfect system has been devised, and both carriers and their customers have to rely upon a combination of methods.

House-to-house Collection

House-to-house calls would enable a carrier to gather all the trade in a district, and unfailingly offer facilities of carriage to private individuals whenever required. But the cost of such a method is prohibitive. In the London district, a near approximation to the house-to-house call has been obtained by supplying to householders cards bearing the name of the carrying firm in large letters, which, when goods are to be collected, are placed in a window or other conspicuous position. The carrier sends collecting vans through all the principal residential streets; in fact, the vans practically traverse the whole town, stopping at any house in which the card is displayed, and collecting the goods.

Collecting Agency and Depot

Less attractive to the private individual, but more suitable for the merchant and more economical for the carrier, is the system of agency and depot collection. In every district of a town, and at various points in rural districts, the carrier firm appoints an agent or establishes a depot managed by its own employees. Here the customer gives an order for collection of a parcel or package at a certain time, and it is entered on a book of duplicate slips. When the collecting van calls at the agency or depot, one of each pair of slips is given to the vanman, and he proceeds on his round, grouping the slips according to locality, and making the calls required. If the parcels are carriage paid, the money is taken either by the agent or the carman.

[1] The system is still in use, with a few improvements and additions, and is known among accountants as Pickfords' system.

Consignments of Merchandise

When a customer purchases goods of any value or bulk, the merchant undertakes delivery to the destination of the goods. Many firms doing a large business employ vans and cars for conveyance of goods to the homes of customers; but the practice is by no means universal, and the radius of such a system is limited. Even in London, with the assistance of the motor car, the largest firms can hardly go beyond the 12-mile radius with their own cars. The scope of the regular carrier is therefore considerable.

This branch of carrier business readily admits of regular and systematic arrangement. Commercial firms usually arrange with the carrier firm to call regularly and lift the goods to be distributed. Specially prepared forms are supplied by the carrier, which are filled up by the owner or consignor of the goods, for either carriage forward or carriage paid. By this method much time is saved, and the distribution of the goods is secured in the manner required.

Cash on Delivery

A new and important development of our trading is the "cash on delivery" or C.O.D. system. Goods ordered by post, or purchased from a firm by a customer who prefers to pay cash on receipt of goods, are accepted by the carrier, who undertakes to collect the money. In consigning the goods, the sender enters the value on the note of consignment. It is part of the carman's duty, therefore, when delivering the goods, to take payment of the amount stated. The money collected is subsequently handed over to the consignor by the carrier firm. (See also article on Post Office, Part I, Chapter VII.)

Depots

Wherever the trade warrants it, the carrying firm sets up a depot, which is a centre both for distribution and collection. Each depot is situated as nearly as possible in the centre of the district it is designed to serve, having regard to railway and other media of conveyance. For instance, Pickfords have twenty depots in London alone, and a hundred spread all over England, besides agencies in most of the provincial areas. In each depot the goods are classified and sorted into divisions. Local goods are put together for immediate delivery; the parcels to be sent by rail or canal are sorted and bulked; goods destined for foreign or oversea carriage are likewise put together and prepared for shipment. If the depot is in a populous centre and the trade is large, the work is divided into departments, local, country, and foreign, each department having its own staff.

Conveyance in Bulk

Sometimes it is asked how it happens that a carrying firm can compete with a railway company on its own lines. This is explained by what is called the "bulking system". A railway company will naturally undertake to carry one large consignment of parcels at a cheaper rate than it will carry each one of these parcels separately. The booking and other expenses and trouble to the railway company of handling are reduced. The carrier firm collects and parcels a number of packages going to the same place, and consigns them as one. The railway company has no further trouble. The carrier firm accepts delivery of the bulk at the other end of the journey and undertakes distribution. Having expert knowledge of every locality, the carrier can select the routes best suited for conveyance, and save consignee, consignor, and railway company, waste of time and trouble.

Connected with the "bulking system" we have to note the special difference between the ordinary methods of the railway company and those of the carrier firm, and the facilities the latter affords in many ways. Removals of furniture, for instance, form a large part of the carrier's work. The firm not only undertakes to convey the furniture from one place to another, but it also accepts the whole of the removal contract, stripping a house from basement to garret, taking down curtains, hangings and fittings, lifting carpets and floorcloths, removing every ornament and piece of furniture, and then placing all the household goods in position in the new dwelling. Or, alternatively, if the furniture, for any reason, has to be stored, the up-to-date carrier has warehouses of large extent. (See also Chapter V of this Part.)

This feature of completeness also appears to advantage where goods have to be conveyed by different agencies from one country to another. As a rule, the railway company stops at the terminus of the rails; but the carrier continues the contract on a long road journey, over the ocean on ships, and again on foreign railways or long routes by road. From point of departure to destination the carrier completes the contract without stop or break. The larger carrier firms own steamships and have running powers over foreign railways. To our adventurous colonizing race, that wide scope of the carrier's action has been a great boon. Instead of being forced to sell off all his

household effects, the emigrant to Canada can now take with him his most cherished possessions. Pickfords have now a service twice weekly for the carriage of settlers' effects to Canada.

No one who has read the fascinating literature of the theatre, but knows the endless trouble and worry involved in the carriage of scenery and accessories on tour. The carriers undertake the whole business of taking scenery from place to place for theatrical companies on tour. As soon as the drop scene has fallen on the last performance in the town, the carriers' staff appears on the stage, and scenery and properties are speedily put away and packed in the vans specially constructed for the purpose, then to be hurried by road or by rail to the next place of performance.

Delivery

In general, the methods of delivery of goods are similar to those of collection. There is the same detailed system, and the goods are conveyed to the destinations directed. Much care must be observed in the consignment of goods to the proper address, and the carrier firm takes precautions to avoid mistake.

Express Delivery

Efficient service of a commerce so clamant in its demands upon time-saving as ours, requires a carriage swift and frequent. Packages of goods purchased during the day must be conveyed to the home of the buyer the same evening, or as quickly as the home can be reached. Other occasions for rapid delivery arise constantly in ways too numerous to mention. To meet this demand, the express parcels system was devised. Originally planned for the needs of central London, the method has been extended all over the metropolitan district. It is here that the full advantage of the depot system, with its numerous sorting departments, appears. Because each depot is placed at a central point in the area, the parcel collected has only a short distance to travel from the place where it is collected to the depot; a constant service is kept up between the various depots for the transfer of goods; and the sorters rapidly assign the parcels to their proper class and place. From each depot there are at least three deliveries, and from some as many as eight deliveries in a day.

Rates

In a trade handling a variety of articles so widely different in character, the fixing of rates and charges bristles with difficulties. The carrier companies, however, have wisely adopted uniform charges for the parcels most commonly carried. The rates charged by most firms for parcels, luggage, and private effects are as follow:—

Not exceeding	7 lb.	...	4*d.*
„ „	14 lb.	...	6*d.*
„ „	28 lb.	...	8*d.*
„ „	56 lb.	...	10*d.*
„ „	84 lb.	...	1*s.*
„ „	112 lb.	...	1*s.* 3*d.*
„ „	140 lb.	...	1*s.* 6*d.*
„ „	168 lb.	...	1*s.* 9*d.*
„ „	2 cwt.	...	2*s.*
Exceeding 2 cwt.		...	1*s.* per cwt.

The following articles may be charged by measurement in lieu of weight, the standard being the greatest length measured any way:—

ALTERNATIVE RATES BY MEASUREMENT

	Not exceeding		
Luggage boxes (metal or wood) Dress baskets (covered or wicker) Dress suit cases Gun cases Gladstone bags Portmanteaux	18 in. 6*d.* 36 in. 1*s.*	24 in. 8*d.* 42 in 1*s.* 3*d.*	30 in. 10*d.* 48 in. 1*s.* 6*d.*
Golf bags		6*d.* each.	
Cricket bags		8*d.* „	
Ladies' small handbags		4*d.* „	
Ladies' tin or leather bonnet boxes Gentlemen's leather hat boxes		6*d.* „	

Light and bulky articles at weight rate plus 50 per cent extra.

The rates for shipment of baggage for passengers embarking from the various docks in London are given thus:—

	Rates including Dock Charges	Rates Cartage only
	s. *d.*	*s.* *d*
Deck chairs (folding), hat boxes, small handbags, rugs and sword cases	1 0 each	0 6 each.
Deck chairs (large)	—	1 0 „
Gladstone bags, dressing cases, dispatch boxes, and gun cases not exceeding 56 lb.	1 6 „	0 8 „
Portmanteaux, boxes, and other packages of ordinary baggage, above 56 lb. and not exceeding 84 lb.	2 0 „	1 0 „
Ditto, up to 1 cwt.	2 6 „	1 0 „
Ditto, not exceeding $1\frac{1}{2}$ cwt.	4 0 „	1 6 „
Ditto, not exceeding $2\frac{1}{2}$ cwt.	5 0 „	2 6 „
Bicycles in crates not exceeding 25 cub. ft.	3 0 „	2 0 „
Ditto, above 25 cub. ft.	5 0 „	3 0 „
Minimum charge	2 6 „	1 6 „

Contracts and Ledger Accounts

As the auxiliary of commerce the carrier must be ready to undertake work of an extraordinary kind which may occur through exceptional circum-

stances. His experience enables him to calculate costs and furnish estimates for unique undertakings. The collection of the returns of the census for 1910 was a case in point. From every town and district in England and Wales Pickfords collected the census papers, and delivered over 250 tons of returns to the Government officials. Having an agent so ready, commercial men venture on new enterprises which might otherwise seem impossible.

Though highly valuable as the helper in the progressive growth of commerce it is as the permanent auxiliary that the carrier performs his most important function. Industrial and commercial firms doing large business accept the carrier firm as part of their business organization, and keep with it an open ledger account. All the details of incoming and outgoing of goods, with variations in charges and irregularities incidental to conveyance, are cleared off by the carrier and shown in distinct and regular form in the ledger account.

Insurance and Carrier's Liability

One of the most complex matters in commerce is insurance of goods in course of transit. Carrier firms, however, have arranged a scale of rates and system of insurance for baggage of passengers which has been found of great service. The forms most commonly used provide for the separate specification of each article or package in the luggage, with the value attached. Special provisions are made for jewellery and other valuables. On the insurance form, rates, including insurance and duty, are given, for periods ranging from 14 days to 12 months, and for amounts between £20 and £100.

Passengers' Luggage in Advance

One of the newest developments of the carrier trade is the undertaking to forward luggage in advance for tourists and holiday seekers in the country or at the seaside. At a uniform charge of 1*s.* 6*d.* per packet the carrier undertakes to collect all luggage from the home and deliver to the hotel or lodging of the travelling party. The convenience of the arrangement has given rise to a large amount of traffic. By merely sending word to any depot of the carrier firm, and filling up the required form, the tourist is spared all anxiety and trouble about luggage.

Extensions of the Carrier's Business

From carrying goods all over the world Pickfords has advanced to undertaking conveyance of passengers on tours ranging from the English Lake District to tours "round the world". Officials of the firm are authorized passenger agents for all the leading shipping lines, and persons desirous of travel can obtain from them every detail of information required, tickets, booking of passages, insurance, and collection of baggage, and the numerous facilities of long-distance travel which must otherwise be sought at different agencies. These enterprises lie beyond the scope of this article, and they are adduced only to illustrate the maxim that work well done brings opportunity for still further service. Primarily the carrier's business is with goods and cargo, parcels and baggage, but his efficient care may extend to human freight as well.



HEAD OFFICES OF WHITE STAR LINE, LIVERPOOL


HEAD OFFICES OF NORDDEUTSCHER LLOYD, BREMEN

CHAPTER III

RAILWAY CARRIAGE

Introductory—Railway Finance—State Purchase of Railways—Railway Competition and Combination—Railways and the Public—Traders and Railways—Agricultural Co-operation—High-capacity Engines and Wagons—Railway Accounts—Railway Administration—The Railway Association—The Railway Clearing House—Railway Companies and their Employees—Railway Electrification—Light Railways.

INTRODUCTORY

The application of steam power and allied forms of traction to transport service by land and water has probably done more than any other form of enterprise to advance the comfort and wellbeing of the community. The investment of capital for this purpose has given on the whole very satisfactory results, and the stimulus to trade and industry in all parts of the world is a leading historical fact. The provision of artificial surfaces to reduce friction in haulage is recorded from the earliest ages, but it was not until the eighteenth century that improved methods of manufacture permitted the use of metals as a roadway. Coincident with the use of iron tramway lines in several parts of the country, experiments in steam traction were in progress. Richard Trevithick's locomotive was running on the Cornish highroads more than a hundred years ago, and one of a similar type was tried on a South Wales colliery line. The Stockton and Darlington railway, opened on 27 September, 1825, was, however, the pioneer of the iron roads which now gridiron the world.

The venerable "Puffing Billy" locomotive, which now forms one of the national treasures at South Kensington, owed its initial success on that line from 1813 onward, first in coal transport and afterwards for both passengers and goods, to the device of increasing fuel combustion by turning the waste steam into the chimney. The tubular boiler of the "Rocket", the winner of the competition at Rainhill near Liverpool in 1829 (now also at South Kensington), formed another notable improvement, and practically completed the locomotive as in use at the present day.

Railway Promotion

The solution of the traction problem thus effected caused a rush of railway promotion both here and abroad. The Liverpool and Manchester railway, on which the "Rocket" made its trial trip, was opened for traffic in 1830, and in 1838 the route between London and Birmingham was completed. The rush of succeeding projects culminated in the "Railway Mania" of 1845, in which year there were deposited in Parliament 1263 bills, representing a capital of 563 millions sterling, and involving a deposit of actual cash under the then existing regulations of 59 millions. Panic ensued and heavy financial losses, and it was some years before order was evolved out of the chaos of schemes. The main systems of the country then gradually assumed the shapes since retained with but few modifications. Promoters and Parliament alike took the businesslike and equitable view that certain districts or lines of routes should be allocated to separate corporations, and harmful or unnecessary competition was, and has since been, discouraged. In its initial application or subsequent extension of powers each company has had to satisfy competent authorities both of the public need for the railway proposed, and of the probability of earning adequate dividends and interest on the capital involved. Recent practice has also included demands for proof of the financial

capacity of the promoters. To the principles thus involved, comprising as they do practically Free Trade in railways, with concurrent regard for the public interest, no exception can be taken; and the result has been the provision of better facilities for travel and transport in this country than elsewhere in the world where Government initiation and regulation have been generally more in evidence. One drawback has indeed existed in the heavy preliminary costs, both parliamentary and legal, and the extortionate prices paid for land purchase, which, with the compulsory regulations and construction to ensure public safety in working, have combined to swell the mileage cost of British railways far beyond those of any foreign systems.

State and Private Ownership

State ownership of railways prevails in many foreign countries and in several of the Colonies. In a new country there is an obvious advantage in pledging the collective credit to raise capital for the provision of public requirements. Moreover, where the growth of population in itself will add to the value of works of general utility, there is something to be said in favour of securing such profits for the public advantage. The trend of recent legislation and the attitude of the Labour party in the British Parliament have brought the question into increased prominence at home. If proper terms are to be offered to the existing proprietors either in the form of Government Stock or cash, the high initial cost of railways in this country, already referred to, forms a decided objection to the policy of State purchase, while the depreciation of national credit, illustrated by the "record" low price of Consols, presents another difficulty. Government management, moreover, has been invariably found lacking in initiative, a matter of considerable importance at the present time when new or modified forms of traction are calling for constant watchfulness, and may at any time involve large changes and heavy capital outlay. The enormous amount of patronage involved in the working of a State department, including over six hundred thousand railway employees, forms an obvious danger and difficulty. Foreign experience of State management affords no guarantees that political or party considerations will not override the main question involved in railway operation, viz., the provision of the fullest facilities for travel and transport consistent with the earning of an adequate profit on the capital invested.

RAILWAY FINANCE

The capital cost of English railways stands at about £67,000 per mile of line, but the proportion of double track on the whole system is higher than in most other countries. The percentage of single track in England is 33 per cent, in the United Kingdom 44 per cent, in France 57 per cent, and in Germany 61 per cent. The railways of the United Kingdom have cost £56,000 per mile. In Belgium, the capital involved is £35,000 per mile. As to other leading countries, the cost in Italy stands at £26,000 per mile, in France at £25,000, in Germany at £22,000, in Russia at £16,000, and in Denmark and the United States about £10,000 in each case.

The return in interest and dividends on British railway capital has been fairly uniform over a series of years, though for a period a downward tendency was to be noted as a result of large additions to capital encouraged by the rate with which new stock could be placed. There was thus a disposition on the part of railway boards to relieve revenue of charges which might have been met out of current earnings. A growing sense of the danger thus involved, and of the necessity of restricting expenditure of both capital and revenue, has, it may be hoped, checked the decline in interest yield, illustrated by the following figures taken from the official returns of the Board of Trade.

RAILWAY NET RECEIPTS

Proportion to Paid-up Capital

Year.	Per Cent.	Year.	Per Cent.
1891	4·00	1901	3·27
1892	3·85	1902	3·42
1893	3·60	1903	3·43
1894	3·77	1904	3·39
1895	3·80	1905	3·42
1896	3·88	1906	3·45
1897	3·73	1907	3·47
1898	3·55	1908	3·32
1899	3·61	1909	3·43
1900	3·41	1910	3·59

It doubtless would have been better if regular reserve funds had been established on most of the lines to offset the depreciation of track and rolling stock; but that this is properly performed at the expense of revenue has to be duly certified by the auditors of the company. Additional work and new stock is rightly covered by new capital. Nevertheless the companies recognize the fact

that, from time to time, types of construction tend to become obsolete, and it is customary to make exceptional revenue charges for their replacement even while they may still remain in service. In the same manner the strengthening of the permanent way and bridges to meet the requirements of heavier loads has been occasionally provided for by exceptional debits to revenue. The principle generally laid down has been that the property should be maintained out of current revenue, and that all surplus earnings, after paying *fixed* charges, belong to and should be periodically divided among the proprietors. The example of American railroad methods in respect of expenditure is often adduced by critics of British railway management; but it must be remembered that most of the lines on the other side of the Atlantic were originally laid down in a far less solid and substantial manner than is necessitated here both by law and custom. Practical reconstruction of many American systems has been called for to meet the requirements of growing traffic; and the "betterments" which form so large an item in railroad accounts in the United States would hardly be popular in this country as introducing a new and unknown speculative element into railway finance.

Watering of Stocks

The official figures given above in respect of the return on British railway investments require consideration in view of the fact that in recent years the capital has been swollen by nominal additions which imply no extra liability by way of interest and dividend payments. The debenture and preference charges of most of the leading companies bearing formerly comparatively high rates of interest have been consolidated into low-interest-bearing stocks, increased capital being given to the holders to represent the reduction of yield. Facilities for borrowing by the companies have thus been increased, while the proprietors have gained by increased marketability for their securities.

There is less to be said in favour of the "splitting" or "duplication" of stocks, which has been the main cause of the nominal capital increase referred to. Special powers for the policy in question were taken in the Great Northern Railway Act of 1848, when in the discredit following the railway mania, and the difficulty of securing payment of calls, holders were given permission by Parliament to split them into "deferred" and "preferred" portions. The main object was to enable shareholders to relieve themselves of liability by disposing of half their shares to parties who would be willing, under the attraction of a 6-per-cent guarantee, to pay up upon them at once and in full. It was found in practice that the divided stocks had jointly a higher value, due to the increase of security in the case of the preferred, and to the larger speculative possibilities of the moiety possessing the reversion. The same policy was adopted by the Brighton Company in the times of discredit following the financial panic of 1866; and general powers were given by the Regulation of Railways Act, 1868, for the optional splitting of stocks, of which advantage was taken by the South-Eastern and the Sheffield, now the Great Central Company.

Stock Duplication

The first actual "watering" of stock, or increase of capital without increase of resources, took place in the rearrangement of North British finances consequent on the taking over of the Edinburgh and Glasgow capital in 1888, when the duplication of the existing £5,180,000 North British ordinary stock was sanctioned by Parliament. The Taff Vale railway in the following year carried the principle still further. The company had distributed dividends as high as 18 per cent out of its mineral traffic, and permission was given in 1889 to issue £250 of new stock for each original £100. Stipulations were, however, made that any surplus, after a dividend of 6 per cent had been paid on the increased stock, should be devoted to the reduction of tolls, or used in other ways to the advantage of traders and of the public.

Proposals of the Caledonian, London and South-Western, and Isle of Wight railways, in the session of 1890, for the duplication of ordinary capital through the exchange of £100 of ordinary stock for £100 preferred and £100 deferred, and proposals by the Great Northern for rearranging its capital with a nominal increase, were referred to a Select Committee of the House. Evidence was given by representatives of the Board of Trade, of the Bank of England, and of the Stock Exchange, and in the result the four Acts in question were passed. The companies pointed out that the policy was forced upon them by the fact that outside organizations, such as the Stock Conversion and Railway Investment Trusts, were buying up their securities for duplicating or dividing, and that the voting power thus secured might be used to the detriment of the undertakings. The directors thus preferred to do the conversion themselves, and the argument prevailed for the time being. The Barry, the Rhymney, the Midland, the Glasgow and South-Western, and the Great North of Scotland have since "duplicated" their stocks, while the Cardiff and the Central

London took powers for "splitting". Several of the leading companies have been consistently opposed to changing their stock denominations; and their objections have since been confirmed, so far as "duplication" is concerned, by decisions of the law courts with respect to liabilities incurred by the nominal increase of capital. The Midland Company's Act of 1897 provided for additions on which an *ad valorem* duty of 2*s.* per £100 was claimed by the Inland Revenue authorities; and the company, after appeal to the House of Lords, was adjudged to pay a total sum, with penalties, of £108,000, together with the costs of the proceedings. The increase subsequently made in the stamp duty in question from 2*s.* to 5*s.* per cent will probably act as a further deterrent to what is unquestionably unsound finance, and may form a possible embarrassment to the companies which adopted it.

The Board of Trade Summary table for 1910 shows that of a total paid-up share and loan capital of £1,318,500,000, about £197,000,000, or approximately 15 per cent, was due to nominal additions on the consolidation, conversion, and division of stocks. These additions formed approximately 18½ per cent of the ordinary stock, 13 per cent of the preference and guaranteed stocks, and 12½ per cent of the loans and debenture stocks.

STATE PURCHASE OF RAILWAYS

The possibility of the purchase of railways by the Government was early recognized by the legislature. The Act of 1844 (which, however, did not apply to about 2320 miles of line already constructed, and forming some of the most important trunk lines) formulated the terms on which British railways might be acquired by the State. These were fixed at twenty-five years' purchase of the annual divisible profits, estimated upon the average of the three next preceding years, conditioned by the rights of those railway companies which are not in the enjoyment of dividends equal to 10 per cent on the capital stock to require that the purchase price shall be left to arbitration. As, however, according to the latest Board of Trade returns, only £700,000 of the £492,000,000 of ordinary stock received above 9 per cent in 1910, practically all the railway companies would to-day possess the power to require that the price of their undertakings should be submitted to arbitration. The spirit of the Act would thus seem to be that twenty-five years' purchase should be paid for railways earning 10 per cent, and the same amount as a minimum for those earning less. A clause in the Act, however, expressly states that it being expedient that the policy of purchase should in no manner be prejudged by the provisions of the Act, but should remain for the future consideration of the Legislature. Upon grounds of general and national policy it is enacted that no notice of purchase shall be given until provision shall have been made by Parliament for determining the manner in which the said option shall be exercised. In short, the Act of 1844 left the policy of State purchase an open question, though the basis was laid down upon which railways subsequently to be constructed should be required to sell their undertakings to the State if a subsequent Parliament should so decree. The views of the Committee (of which Mr. Gladstone was a member) on whose report the Act was based are stated as follows. "It is manifestly of great national importance to give countenance and aid to the investment of capital in domestic improvements; and the very complaint of monopoly which is urged against railway companies, is an indication and a measure of the increased accommodation to the traffic of the country which they have afforded, inasmuch as it has not been so much by force of statutory enactments granting to them special privileges, as by superior cheapness, security, and rapidity of travelling, that their command of the intercourse of their districts has been acquired; and the Committee doubt whether the establishment of railways in this country does not afford a more remarkable instance than can be cited from any analogous subject-matter, of immense, and certain, and almost uniform benefit to the public, combined with a very moderate standard of average remuneration to the projectors".

RAILWAY COMPETITION AND COMBINATION

As has been already intimated, the trend of railway administration and legislation in this country has been towards a recognition of the fact that each company should have control of its own district. The danger of placing the control of so important a service as travel and transport in the hands of virtual private monopolists has been found to be practically non-existent.

Fears of excessive rates and inadequate accommodation as accompaniments of corporate enterprise are found to be unjustified. The incitements of individual or corporate gain have been usually found sufficient to provide all requisite facilities for the public convenience. On the vexed question of railway combinations a Joint Parliamentary Committee reported in 1872 that—"Committees and Commissions carefully chosen have for the last thirty years clung to one form of competition after another; that it has, nevertheless, become more and more evident that competition must fail to do for railways what it does for ordinary trade, and that no means have yet been devised by which competition can be permanently maintained; that in spite of the recommendations of these authorities, combination and amalgamation have proceeded at the instance of the companies without check and almost without regulation. United systems now (1872!) exist, constituting, by their magnitude and by their exclusive possession of whole districts, monopolies to which the earlier authorities would have been most strongly opposed. Nor is there any reason to suppose that the progress of combination has ceased, or that it will cease until Great Britain is divided between a small number of great companies." These conclusions have since been amply justified. The growing tendency in recent years to form combinations aroused the hostility of the increasingly powerful Labour party in Parliament, solicitous in regard to supposed reduction of employment. A Departmental Committee on Railway Agreements and Amalgamations reported in May, 1911, that competition between railways, in so far as it is sought to be imposed by Parliament against the desire of the companies concerned, is dead, and that the steps taken by the railways to prevent competition have not been detrimental to public interests. "The present position is that the efforts which have persistently been made by railway companies to avoid active competition between themselves, so far at any rate as regards the terms and conditions upon which the railway service shall be performed, have now reached such a stage of completeness that they may, speaking broadly, be described as having prevailed. It must be accepted that the era of competition between railway companies is passing away, and it was recognized by witnesses on behalf of the traders that this could not be prevented. . . . It is, indeed, evident that competition between railway companies, being as it is a voluntary relation, can only be relied upon to continue *so long as the competing companies think it is to their interest to continue it*. . . . We have come to the unanimous conclusion that the natural line of development of an improved and more economical railway system lies in the direction of more perfect understandings and co-operation between the various railway companies, which must frequently, although not always, be secured by formal agreements of varying scope and completeness, amounting in some cases to working unions and amalgamations. . . . We accept the growth of co-operation and the more complete elimination of competition as a process at once inevitable and likely to be beneficial both to the railway companies themselves, and, if properly safeguarded, to the public also."

So far as concerns the public and the traders, the report reviews the merits and demerits of alternative suggestions—(*a*) that all agreements between railway companies should be required to be submitted to some public authority for sanction; (*b*) that the general law should be so altered as to exercise a more effective control of railway companies' relations with the public, both in regard to changes in the result of an agreement, or in a non-competitive district in which no understanding is necessary in order to bring them about. The latter course was favoured, and it is proposed that railway companies should be required to justify the reduction or withdrawal of a facility or service, or the introduction of a charge for a service previously rendered gratuitously. This imposition of the onus of proof follows the principle laid down in the Railway and Canal Traffic Act, 1894, under which, when a complainant has proved an increase, the Court assumes, until the contrary is shown, that such increase is not reasonable. (See Chapter V of this Part.)

It is obvious that combination makes for economy in working. If the control of the railways be such that the collecting and terminating points of traffic over large areas are under a single management, it is clear that the best arrangements can be made for the transit of the traffic—the dislocation and consequent waste of power which competition would necessarily entail being avoided—the disappearance of minor links in the transit routes such as the small railway systems involved being specially favourable to broad economics. This parcelling out of the network of lines into large defined areas enables the controlling company to make its own arrangements for the provision of services corresponding with the traffic requirements, and thus enabling work to be performed with the largest possible units with all the advantage that wholesale handling implies in comparison with the restricted and hampered methods which a variety of opposing interests unavoidably creates. The largest unit practicable implies large train loads, hauled by powerful engines, minimizing occupation of the

line for any given volume of traffic and the number of engines required to deal with the traffic, as well as the provision necessary for storage and the staff employed. The avoidance of duplicate collecting houses and agencies in itself is an important item.

RAILWAYS AND THE PUBLIC

The development and administration of the railway system of the country have taken a widely different course from that originally projected by promoters and legislators. The pioneers of railways designed them to be improved highways, for the use of which the public were to pay tolls. The Parliamentary Committee of 1853 clearly defines this position as under: "When the first railway bills were passed, and the present system of railway legislation was gradually acquiring shape, the ordinary traffic was conducted upon the roads and canals, and the new system offered to the country the option of an improved mode of transit, which was naturally accepted in the terms in which it was offered. Nor can it be doubted that railways were expected to be in practice what they are in contemplation of the law, new highways freely open to the public to pass with engines and carriages at their own discretion." Considerations of public safety no less than questions of convenience have, however, placed the management of the lines exclusively in the hands of the companies constructing and owning them. The sole remains of the principle above indicated are to be found in the large number of wagons still belonging to private owners and used mainly in the coal industry. As originally proposed, railway companies were empowered to charge regular "tolls" for the use of the roadway, and additional sums to cover carriers' services, risks, and a necessary profit, the amount of which was expected to be governed by competition between the carrying firms and the railways. From the year 1845 onward, as a result of the experience in working, each railway Act laid down a fixed maximum charge per ton per mile for transport services, the scale being somewhat lower than the sum of the tolls chargeable under the earlier Acts for the use of the railway, and wagons, and locomotive power combined. A terminal charge was permitted in addition where services were rendered other than conveyance by railway. These maximum-rate clauses have been maintained with but a few amendments to the present day.

Considering that the early law of carriage by railway was based upon a total misapprehension of the method of development actually followed, it is not surprising that confusion reigned for a time in the legislative enactments and judicial interpretations of the law. The Railway Clauses Consolidation Act of 1845 introduced something like order. By it the railway companies were required "to accommodate their rates to the circumstances of the traffic" within the fixed maximum. Attempts from time to time to formulate equal mileage rates based on cost of transport, &c., have been discussed, but the broad lines on which the actual tariffs of British railways have been regulated have been to ask of merchandise all it can justly be called upon to pay. As the result of business experience it has been the aim of the companies to make their rates conform to the requirements of trade, or in other words to charge what the traffic will fairly bear.

Railway and Canal Commission

The working of and charges made by railway companies have been the subject of numerous parliamentary enquiries, reports, and enactments, but special reference must be made to the committee of 1872. The Act of the following year, based on its recommendations, constituted the Railway and Canal Commission with a view to giving traders a specially qualified tribunal to hear their complaints against railway companies. In 1881–2, the year before the expiration of the second term of the 1873 Railway Commissioners, another House of Commons Committee inquired into the working of the tribunal, and as to the then existing relations between the traders and the companies. Among the recommendations made was one that the Commission should be made permanent, which was done by the Act of the following year, notwithstanding the comparatively few cases that had then been brought before it. "Its utility is," the Committee stated, "not to be measured solely by the instances in which it has been called upon to hear and determine, but also by the deterrent and controlling influence of its existence."

Railway Charges

The earlier railway Acts, in arranging a classification of goods for rate purposes, followed closely the lines taken by preceding Canal Acts. Under these, coal, stone, timber, grain, malt, meal, flour, and other goods, wares, merchandise, and commodities whatsoever, were subject to a charge at

the rate of $1\frac{1}{2}d.$ per ton per mile, and dung, soil, ashes, marl, and other manures at half that rate. There were only 12 articles enumerated in the Canal Act of the beginning of last century. The original railway Acts comprised from 50 to 60, divided into five or six groups. These were found insufficient to provide for growing commercial and industrial requirements, and in 1847 the railway companies framed a classification of through traffic and classified 326 articles. Additions were made to the number from time to time, and the Railway Clearing House classification in force prior to 1888 contained the names of no less than 2753 distinct articles. The Act of that year called for the preparation by the companies of "a revised classification of merchandise traffic and a revised schedule of maximum rates and charges applicable thereto proposed to be charged, stating in such classification and schedule the nature and amounts of all terminal charges proposed to be authorized in respect of each class of traffic, and the circumstances under which such terminal charges are proposed to be made". As may be imagined from the facts that there were at that date at least 18,000 railway stations in the United Kingdom, and 40,000 pairs of stations between which business was actually transacted, the work involved was of enormous magnitude; but by February, 1889, the railway companies had lodged the revised classification of merchandise and the schedule of maximum rates. It was stated at that time that in the case of the London and North-Western alone the number of rates between stations on that line was over 20 millions. All the Acts under which the railways had been constructed specified articles of merchandise and minerals to be carried at certain rates, and these differed widely in many cases. The new classification included some thousands of articles which were grouped under five distinct classes, denoted by figures from 1 to 5, and two others known as "M" and "S", the former including minerals, and the latter such goods as generally pass from "station to station" only in large quantities, such as grain.

A prolonged enquiry followed, objections on the part of shippers being invited by the Board of Trade, to consider which more than a hundred meetings took place in various parts of the country between representatives of the companies and the traders. The meetings, which commenced in June, 1889, produced a very good effect by the interchange of views between the various interests, and have since undoubtedly tended to establish better relations between the railways and their customers. Hearings of objections at the Board of Trade followed, under the presidency of Lord Balfour of Burleigh and Sir Courtenay Boyle, and that department undertook to consider and amend the final classification. The number of entries was fixed at about 1800, and the margin between the statutory classification and the new list was thus considerably reduced. The classifications and schedules of rates as amended by the Board of Trade were further considered and amended by a Joint Committee of both Houses of Parliament, and were finally passed into law in 1891 and 1892, and as from 1 January, 1893, became the basis of railway companies' rates and charges.

An agitation on behalf of traders as to the manner in which the companies used their powers under the new Act followed, and in May, 1893, a Select Committee was appointed to enquire into the subject. The report of the Committee, presented in December, 1893, found in effect that the rates not reduced by the new maxima should have been left untouched, and stated that the Committee "cannot but think that the course of the companies was mainly actuated by their determination to recoup themselves to the fullest extent by raising the rates of articles where the maximum rates were above the actual rates". The Committee's recommendations were embodied in an Act passed in 1894 which provides that in case of any change of rates the company shall be bound to prove that any increase of charge is reasonable. In such case complaint has to be made to the Board of Trade, with a right to the trader to appeal to the Railway and Canal Commission if no agreement between him and the company result from the intervention. (See Chapter V of this Part.)

An entirely new element was thus introduced into the legal history of railway enterprise and working, and highly important decisions have been given as regards the rights of traders and the interests of proprietors. Among the principal of these have been cases involving the justification by the companies of advances in charges based on additions to the expenses of working the traffic due to the enhanced price of labour and materials. A mass of evidence produced on this question in suits brought against the London and North-Western, Midland, Great Western, and other companies, alleging that rates to and from Manchester and Liverpool had been, as from January, 1893, unreasonably increased either directly or indirectly in various ways. The standing difficulty which has had to be met is that of apportioning many items of railway expenditure, and determining what proportion of them is chargeable to any particular description of traffic or district. As was pointed out, the cost of maintenance of way can be to some extent dealt with on the basis of the number of trains; but in the case of most

stations the men employed cannot without difficulty be apportioned to goods and passenger traffic respectively. In what has since been regarded as the test case in question (*Smith and Forrest v. London and North-Western Railway, &c.*, 1899) the Commissioners gave weight to the argument of increased expenditure, and held that the companies were justified in an increase in the rates complained of, though the increase was reduced from the 5 per cent imposed to 3 per cent.

TRADERS AND RAILWAYS

In the use of railways, and in view of possible claims for damage or delay, there are several considerations to be kept in view by traders. There are *two rates* in operation for the carriage of most articles by railway. Goods forwarded by "ordinary" or "company's" risk are conveyed at the risk of the railway, and the company is responsible for whatever may occur during transit. The cheaper or "owners'" rate is granted on the understanding that the consignor undertakes to relieve the company from all liability from loss, damage, misdelivery, delay, or detention, except such as may arise from wilful misconduct on the part of the company's servants. The saving by the lower rate ranges from 10 to 50 per cent, but against this is the difficulty of proving "wilful" misconduct. (See also Chapter V of this Part.)

In the matter of *packing* care is to be enjoined on the consignor, defects in this matter being held to exempt the railway company from liability. If perishable articles, say soft fruit, are damaged by their own weight and the inevitable shaking of the carriage, they are not injured through the carrier's fault; but if through pressure of other goods carried with them or by an extraordinary shock or shaking, whether through negligence or not, the carrier is liable.

Claims for damage or theft during transit should be made promptly, as the company will not entertain them after a receipt has been given for the goods. Where this cannot be done on delivery a provisional acknowledgment only should be tendered. Goods delivered in a damaged state should be accepted under protest.

Consignments of goods are often made "*under mark*"; that is to say, instead of addressing the goods in the ordinary way the package is marked with the consignee's initials or a figure, the full name and address being entered on the consignment note. This is often done so that business competitors may not obtain information.

Disputes often arise as to the *route* taken by a consignment. A railway company must accept all merchandise handed to them for conveyance; but where two routes exist they are not bound to carry the goods by the shorter of the two. If, however, definite instructions are given as to forwarding in a certain way, damages may be claimed where injury or detention is shown to have followed a disregard of such instructions.

The damages recoverable when loss or damage occurs, according to the usual contention of the companies, is the invoice price of the goods, and they disclaim responsibility for "consequential" losses. (See Chapter V of this Part.)

AGRICULTURAL CO-OPERATION

A highly promising movement in connection with railway service and the development of British agriculture is to be found in the organization of the traffic by the farmers themselves. It is a common charge against railway companies that they give undue preference to foreign producers by quoting lower mileage rates from port to market for foreign consignment than are charged to the home customer. The answer of the railway companies, which has been held conclusive by the Courts, is that with similar large bulk and loading conditions the lower charge is available here. The collection and handling of fruit, vegetable, and dairy-produce shipments have been carried to great perfection in France, and still more notably in Denmark; and the Agricultural Organization Society, founded in 1901, has done good work in introducing the benefits of the system to farmers and dealers in this country. The questions involved are of the greatest importance in connection with the national movement for rural development. Under the Small Holdings and Allotments Act, over 120,000 ac. have already been acquired, which would provide holdings for over 12,000 applicants. The provision of cheap transport is of the first importance to the success of the policy, and organization in the matter of collection and package of produce is essential. All possible assistance in this direction should be given by the railway companies concerned.

HIGH-CAPACITY ENGINES AND WAGONS

A fundamental factor in railway management of course consists in the paying load of trains, any increase in which is necessarily accompanied by additional profits. The actual running of a train, apart from establishment and fixed charges connected with the line and equipment and upkeep, is highly remunerative; and an ideal state of affairs for railway proprietors would be that no train should be dispatched until every seat was occupied and every wagon filled. Public demands at their maximum would necessitate that trains should be ready at any time and all times to convey passengers or goods. An adjustment of these requirements, or at least a close approximation, is the best test of efficient management. There is a type of railway critic who advocates in season and out of season an adoption of American methods on British railways, based on the use of large-capacity wagons and increased hauling power. To both these matters the managers in this country have of late been devoting attention, but there are obvious objections to carrying too far and too fast the practice prevailing on the other side of the Atlantic. In the first instance, America is a country of large areas, and the conveyance is required of heavy products for long distances in large consignments. These conditions represent wholesale trade, and permit of economical loading and haulage. Business here is more of the retail order. Goods trains cannot always be loaded to the fullest capacity consistent with the speedy delivery looked for by shippers, and in this matter British railways stand at a much higher level than those in any other part of the world. In respect to loading, moreover, it should not be forgotten that the bulk of the business in valuable and lighter commodities in the United States is conducted by Express companies who load their own vehicles and make an extra charge for the services rendered, the railways only providing haulage. This fact is often overlooked in a comparison of the mileage rates charged in the two hemispheres. In advocating a practical reconstruction of the small goods wagons in general use on British railways, no consideration is given to the fact that a large proportion of the rolling stock, especially in the coal trade, is still owned by private firms and individuals, and that the siding equipment and loading and unloading accommodation are fitted to their dimensions. In a report on this subject, Lt.-Colonel H. A. Yorke, R.E., the Government inspector of railways, says: "A great deal has recently been said about the long freight cars used in America, and English railway managers have been criticized for not adopting cars of equal dimensions in this country. I think some misapprehension occasionally arises on the subject. The important factor in the case is not the length of the car, but the carrying capacity of the car in relation to its weight. American freight cars are all carried on bogies, and as a rule there are eight wheels to a car. Their carrying capacity varies from 30 to 50 tons, and their 'tare' weight from 15 to 20 tons. One of the most popular forms of car at the present time appears to be the 50-ft. steel-framed car with a capacity of 50 tons (of 2000 lb.) and a tare of about 20 tons, the total weight per axle being 17 tons 10 cwt. So long as these proportions are adhered to it makes no difference, so far as the cost of transportation is concerned, whether the load is carried in one car with eight wheels or in two cars with four wheels each. That is to say, the result will be the same if, instead of one car of the size and weight mentioned, two cars are employed, each with a capacity of 25 tons and a tare of 10 tons, and each having four wheels. . . .

"There are serious difficulties in the way of introducing, for general service in England, wagons of great length. The sidings, goods sheds, weighbridges, turn-tables, coal tips, screens, &c., are, as a rule, quite unsuitable for wagons of the dimensions named, to say nothing of the usual conditions of trade, which are based on the present style of vehicle. It is sometimes suggested that English companies should forthwith reconstruct the whole of these works and appliances, but no one has as yet estimated what the cost of such alterations would amount to. It is probably incalculable; and the question arises, whether, after all this vast expenditure had been incurred, and the whole trade of the country had been disorganized during the transition period, the saving in handling the traffic would pay the interest on the outlay. The four-wheeled wagon will, therefore, in all probability, remain the standard wagon of the country, and economy is to be sought in improving the design of such wagons, and increasing their carrying capacity in relation to their tare, rather than in introducing wagons of greater length."

In the same report, as the result of a visit to the United States to study American railway methods, Colonel Yorke said: "There is no doubt that the engines are very big, some of them standing 16 ft. high above rail level, and many more of them 14 ft. 6 in. and 15 ft. Such engines have great power and are able to haul trains of great weight and length. In the early days of American railroads overbridges and tunnels were almost un-

known, and now that such are being constructed they have to accommodate themselves to the rolling stock, instead of the rolling stock to the bridges, as in England. In America overbridges are built 18 ft. above rail level, whereas in England the height of such works is as a rule only 14 ft. 3 in. above the rails. Moreover, on double lines in the States the space between the tracks is 7 ft., against 6 ft. in England. It can therefore be understood that what is possible in the one country is impossible in the other, and we can never hope in England to equal America in the size of our engines or cars."

That there has been, however, in recent years a large and steady increase in the weight and hauling capacity of British locomotives is too well known to require emphasis. As a matter of comparison the limit of increased size consistent with economy in practical working would seem to have been reached in the United States. A great deal of the discontent among American railroad employees is due to the extra work involved by the increased size of railway stock, while the extra dead weight is found to be very destructive to the permanent way and road structures.

RAILWAY ACCOUNTS

In June, 1906, the Board of Trade appointed a Committee "to consider and report what changes if any are desirable in the form and scope of the accounts and statistical returns rendered by railway companies under the Railway Regulation Acts". The report, since embodied in an Act of Parliament, recommended the publication of annual instead of half-yearly accounts, with the declaration and payment of interim half-yearly dividends, and that the Scottish and some of the smaller English, Irish, and Welsh companies which do not make up their accounts to 30 June and 31 December, should bring their accounts down to the date which is finally selected for closing the yearly accounts. They also proposed a uniform method in the manner in which the accounts relating to the various descriptions of joint lines and other businesses are rendered, and other practical improvements.

Ton-mile *v.* Train-mile

A large portion of the evidence taken and discussions by the Committee was devoted to the consideration of the varying practice of British and American companies, by which the former confine the traffic details given to the shareholders to the figures of the mileage run by trains. In the United States the companies compile and publish the total tonnage carried, which, it is contended in some quarters, affords a valuable check as to the economy or otherwise of traffic management, a view which is strongly contested by most railway managers here. In their report the Committee state: "At an early stage of our deliberations it became evident that the usefulness of ton-mile and passenger-mile statistics was a highly controversial question. The minutes of evidence very clearly show the divergent views held with regard to it, both by those who have studied the subject and by those whose actual experience of railway working qualifies them to give a practical opinion on the matter. . . . We have been impressed by the evidence given by certain witnesses tending to show that, although ton-mile and passenger-mile statistics cannot in any way be used to replace the methods of continuous supervision and check by subordinate officers over the efficient loading of wagons and trains and over the economical working of our railways in other respects, yet they may often form a useful supplement thereto. The value of this group of statistics appears to lie principally in the information which it places in the hands of the higher officials and directors of the companies with regard to the extent to which efficiency has been secured and improvements in working generally have been effected. Where, and in so far as, rates on the whole remain constant, earnings per train-mile may no doubt be used for a similar purpose. . . . Except where a very strong demand is made on behalf of the public for certain information, we do not think that public companies can fairly be put to the expense of compiling statistics which have no reference to existing methods of working, and which the majority of the companies still regard, though perhaps erroneously, as useless. No sufficient evidence has been brought before us that any such strong feeling exists, except among a very limited number of persons. Both shareholders and the general public appear, so far as we have been able to judge, to show little interest in the question of the general adoption of ton-mile figures, which, so far as this country is concerned, are in use only on a single English railway."

The railway representatives of the Committee, in a separate report, gave their reasons for dissenting from even the qualified approval expressed in favour of the ton-mile and passenger-mile statistics.

RAILWAY ADMINISTRATION

A certain analogy is to be found between the administration of a railway company and the constitution of a Government department. A Railway Board elected by the shareholders represents the Cabinet Ministers, and its province consists of a general direction or control of policy and finance. In the actual working of the line, however, dependence must be placed on the permanent officials, most of whom have gained their experience on the railway, rising to the more responsible posts. The principle of selection thus involved has had on the whole very satisfactory results. A high standard of ability is shown by the leading railway officials of the country, the choice of a large proportion of whom for special honour at the hands of the Crown bearing testimony to their professional and business capacities. Directors are mostly chosen for their personal, financial, or industrial interests in the district served by the line. Boards are frequently strengthened by the election of permanent officials on the expiry of their term of office.

The general manager forms the intermediary between the Board and the general staff, and the extent of his duties and influence varies considerably among the individual representatives of the office. The superintendent of the line is responsible for the running of all trains — passenger, goods, minerals, and live stock—as well as for all matters relating to parcels, mails, and other business coming under the head of "coaching" traffic. The chief goods manager has the entire control of the receipt and delivery of merchandise and minerals, including the working of goods stations, yards, docks, &c. These two officers, of course, have the assistance of a number of officials in charge of separate departments, such as district superintendents, district goods managers, agents, and station-masters. The North-Eastern and Great Northern companies have in recent years introduced a system designed to separate the commercial from the technical working of their lines. Under this arrangement the goods department is relieved of the control of the stations, warehouses, yards, and docks, and of the loading, unloading, and handling of the goods traffic, the whole of which work is transferred to the general superintendent's department, which on the other hand is relieved only to a comparatively small extent by certain duties, chiefly canvassing and advertising, being placed under the charge of a chief and district passenger agent. The principle involved of centralizing the whole of the practical working in the one department has not so far found favour with other companies.

THE RAILWAY ASSOCIATION

In the matter of action where joint interests are concerned, the railway industry often appears at a disadvantage. There has been, however, of late, in connection chiefly with labour unrest and threatened strikes, increased activity on the part of the Railway Association. This body has assumed a more representative character than in former years. All the leading companies are members, and each elects a delegate or delegates to attend the meetings which may be called from time to time so that collective action may be taken as regards bills in Parliament or other questions affecting the industry as a whole. Complaint, however, is still heard that the vast power represented by the railways as a whole is neither organized nor used as effectively as might be desired.

THE RAILWAY CLEARING HOUSE

No such criticism can be directed against the formation or working of the Railway Clearing House, which controls and chronicles the movements of so large a proportion of the transport and travel of the country. The prototype of this body existed in the old stage-coach days. Its headquarters was at the "Golden Cross", Charing Cross, where the managers of the various routes arranged among themselves the amounts due to the respective proprietors who owned or horsed the vehicles employed on any journey. As railways extended over the country it soon became apparent that some similar organization would have to be established to apportion the receipts from traffic. The Railway Clearing House was formed in 1842. There were nine companies then represented, and it is curious to note that not one of these has retained its name, all having been absorbed by one or other of the four leading lines between London and the North. The companies were as under: London and Birmingham, Midland Counties, Birmingham and Derby Junction,

North Midland, Manchester and Leeds, Leeds and Selby, York and North Midland, Hull and Selby, Great North of England. The growth of the organization has of course been *pari passu* with the great industry it represents. Every company that becomes a party to the Clearing House is represented by its chairman or one of its directors, who forms part of a committee responsible for the laws and regulations which govern its operations. This body meets at intervals of three months, and seven members are appointed a Committee of Superintendence, receiving monthly reports from the subordinate heads of the department as to the work done in the division of the through goods and passenger receipts among the affiliated companies, and all other matters of importance transacted during the period.

There is yet a third body engaged in consultative work, consisting of the general managers of the railways. These meet quarterly for the discussion of questions connected with through rates and their apportionment. Arrangements for any great festival or gathering, agricultural meetings, meetings of the British Association, church congresses, tourist arrangements, and cheap excursion trains, all necessitate settlement of details for running continuous services over connecting lines of railway. Fares and rates have to be fixed, as forming the basis on which the division of the receipts of the respective companies has to be made. It might be imagined that, with the many complicated questions and the varied interests involved in the work of the Clearing House, constant dispute and litigation might arise. Such, however, is by no means the case. The legality of the Association is established by Act of Parliament, and this has never required interpretation by the Law Courts. The Act states that whatever is declared by the Clearing House to be due shall be legally due and must be paid. Previous to the passing of this Act, which is certainly one of the most concise and complete on record, there were delays in obtaining prompt settlement of accounts, and even legal proceedings to recover payment; but no wasteful or fruitless litigation has since arisen out of the business of the Railway Clearing House. Once within the scope and purview of the organization there is an end of dispute.

The work of the passenger department of the Clearing House is, of course, comparatively simple. A booking clerk at any station is provided with a regular series of printed tickets, and each month he renders to the Clearing House a return showing the stations to which he books, the number of tickets of each class with their progressive numbers, and the proportion of the fares due to companies other than his own who may be concerned in the bookings. If from any cause a ticket has not been issued, or if a ticket has been cut in half for a child, the unsold ticket or portion must be sent to the Clearing House, which will then relieve the clerk from the debit which he would incur in the absence of such vouchers. The Clearing House does not in the case of ordinary traffic make a division of the entire receipts, but only of those portions of fares which have been taken by one company on behalf of others. In the case of tourist and excursion tickets the through money is, as a rule, accounted for to the Clearing House for division. The preparation of the credit accounts shows for each company interested full particulars of the progressive numbers, and the proportion of fares on each class of ticket separately due to the company for whom the account is prepared. It results that a company is debtor for the fares it has received on account of other companies, and creditor in respect of the fares other companies have collected on its behalf. Arrangements for the examination of collected tickets form a valuable check upon the station returns.

The settlement of the parcels traffic, which is included in the "coaching" department, is obviously a more complicated matter, seeing that, in addition to the Parcels Post arranged with the Government, the companies deal under this head with large consignments, as well as horses and carriages. The total involved is, however, not so large as that for merchandise generally, and it is not so essential to make an absolute settlement each month. Monthly station lists are made up, but a final adjustment is only made half-yearly. In the meantime it is assumed that a company's balances will not vary materially from those of the preceding year, and interim balances are made by the department and paid or received by the companies concerned.

In the goods department monthly returns are made from the stations of the totals of all invoices for through traffic, showing weight and description of goods, whether carried at rates that include collection and delivery, or simply from station to station, the amounts "paid" and "paid out" at the forwarding station and "to pay" at the receiving station, &c. Each station makes returns of its forwarded or outward traffic distinct from its inwards or received traffic, and the first duty of the Clearing House staff is to group these returns so that the outward returns can be checked by the inward documents. If any divergence is found and cannot be adjusted in time, the consignment in question stands over from the monthly account. The settlement is effected by taking the total weight and receipts of the traffic carried between each pair of stations, and making a division of the receipts

among the several companies entitled to share it. Calculations have also to be made of the "terminal" allowances at the agreed rates per ton to the sending and receiving companies. The concluding division into the proportions due for mileage traversed is, however, no mere "rule of three". The Clearing House has to take into consideration not only the actual route travelled, but the numerous agreements between the companies as to the manner in which receipts arising from certain traffic are to be divided. Some of these arrangements are so complicated that they have to be dealt with by a "Special Traffic" department.

The "Mileage" department covers an important part of Clearing House operations. In connection with this branch there is an outdoor staff of several hundred officials, known as "number takers", one or more of which useful body may be seen at all the important junctions of railways. The arduous work involved is to take the numbers and particulars of trains entering or leaving the system: the number and name of the engine, the number of carriages or trucks, the station whence they came and to which they are destined. As a result of these returns each company is informed of the amount, if any, which they have to pay to others, or to receive, for the user and detention of passenger carriages, trucks, wagons, tarpaulins, &c., travelling over lines not owned by themselves. Charges for detention and wrong sending, or what is known in the service as demurrage accounts, are rendered to the companies monthly. As in the other departments of the Clearing House, cash transactions are limited to the balance due to or by a company. One side of each balance sheet shows the charges due from all companies to the owners of one stock; on the other, the earnings of all stocks on the lines of one company. The companies are then advised of the difference, which is either received or paid by the Clearing House. A Lost Luggage department is of material assistance to passengers in tracing missing property.

RAILWAY COMPANIES AND THEIR EMPLOYEES

The unrest in labour which has been so serious in recent industrial history has had its full effect on railway working. The dissatisfaction with inferior conditions of life consequent on the spread of education has doubtless been intensified by the general rise in prices, which certainly has not been accompanied by a corresponding addition to the rate of wages. On the whole, it may be said that the railway service, independent as it is of the fluctuations of trade, and with the certainty it offers of permanent employment and provision for the future, is deservedly popular. Among the more skilled employees engaged in the running department the desire for change is by no means universal, while as regards ordinary labour the ranks could be at any time recruited were the elements of intimidation withdrawn or lessened. The contests between the companies and their men have turned almost exclusively on the question of the "recognition" of trade unionism. The arguments in favour of collective bargaining are doubtless cogent. Dissatisfaction shown on the part of individuals naturally results in making a "marked man" of the firebrand among his immediate superiors, and lessens his chances of advancement. On the other hand, the necessity of subordination in a service which so closely concerns the safety and welfare of the community at large is not to be gainsaid; and the companies have been, and remain, resolute in their opposition to outside interference with matters of regulation and discipline. The spread of trade unionism among the railway ranks has thus been checked wherever possible by official action. The number of members of the three leading organizations, fluctuating as it has been under the varying phases of the contest, has never approached to a majority of the employees, and has represented at the most one-third of the 600,000 odd in the service.

Conciliation Boards

In 1907 the three railway unions formulated a scheme for improved labour conditions involving increased wages and shortened hours, representing, it was calculated, increased expenditure by the companies to an extent which would have involved a reduction by one-half of the collective dividend fund. A general strike was threatened, on the refusal of the companies to entertain these proposals. On the intervention of the Board of Trade a plan was agreed upon by the representatives of the companies and the men for the formation of Conciliation Boards by each company to discuss jointly any grievances and to adjust questions of service and labour. Complaints arose as to the operations of these bodies, and the question of "recognition" was again put forward by the unions, who, in August, 1911, called on all their members to strike. The railway service of the country was seriously impeded and in parts altogether suspended. The Government, through the Board of Trade, again intervened, and the strike was ended within three days, on the appoint-

ment of a Royal Commission to investigate the working of the Railway Conciliation and Arbitration Scheme and to report what changes, if any, were desirable with a view to the prompt and satisfactory settlement of differences. The Commission consisted of five members, representing employers and workmen in equal numbers, with an impartial chairman. Though a great number of witnesses were examined, commendable promptitude was shown in the deliberations, and the report was presented in October. It stated on the chief matter of contention: "The representatives of the men ask for recognition: the companies strongly object to it in any shape. The exact meaning of the term, as it would be applied in practice, is not quite clearly conveyed by either of the parties. The unions do not all express the same views: some desire the presence of a Trade Union official to help the men in advocating their case before the officers of the company or before their Directors; others think that their purpose would be served by the admission of the Union official to help the men before the Conciliation Boards. The existing practice is that Trade Union officials are admitted to plead before the arbitrator. The apprehensions of the companies are that recognition, as they interpret it, would seriously affect discipline and interfere with management if men, in approaching their officers or Directors on any subject of grievance or complaint, had the right to bring a Union official with them.

"We think that with their great responsibilities the companies cannot and should not be expected to permit any intervention between them and their men on the subjects of discipline and management. . . . In our amended scheme we have provided that the members of each board shall be at liberty to select a secretary from any source they may think proper. We mention this in connection with the subject of recognition, as it may be regarded as pertaining to it."

The main points of the 1907 scheme were affirmed by the report, the amendments suggested being in the nature of facilitating and expediting procedure, abolishing the Central Boards, and leaving the power of action in the hands of the Sectional Boards representing the various grades of service. In submitting their report the Commissioners remark in conclusion:—

"The railway service of the United Kingdom is second to none. The public regards its railway system with pride and confidence. That system has been built upon great traditions and high ideals, and it is the privilege of every railway man in the Kingdom, of every class and grade, to participate in and to contribute towards the great trust with which he has been invested. We think we express the general opinion when we say that if railway men will only place the call of duty above and before every other consideration, they may confidently rely upon the British public to support them in any fair claim fairly put."

RAILWAY ELECTRIFICATION

The rapid development of oil motors and the improvements in electrical traction are introducing new elements into the transport problem, and the locomotive and the horse seem destined to be largely superseded as regards urban and suburban communications. For a time there was a perceptible check, at least in the rate of increase in railway receipts, due to the competition of motor cars as regards long-distance first-class travel and of electrical tramway undertakings in towns. All experience, however, proves that traffic grows with the increase of facilities offered. Whatever increased use may be made of public highways through mechanical traction, the railway line has always the advantage of being unimpeded by pedestrian and vehicular traffic, and railway companies have found that where customers have been lost by suburban tramway competition they can be regained by the provision of the more frequent and speedy service attained through the substitution of electricity as a motive power. Local electric and motor services have been inaugurated by several of the companies, and the question of the applicability of the new power to main lines and goods traction is being anxiously studied.

Parliament has passed a bill having for its express object "to facilitate the introduction and use of electrical power on railways". The effect of the measure is to render it unnecessary for railway companies to introduce private bills for enabling them to work their lines electrically, by giving to the Board of Trade authority to make Orders having the force of law empowering the companies so to work their lines. This is simply an extension of powers given under various Acts to the Board, by virtue of which its Provisional Orders confer statutory powers of various kinds upon companies and local authorities, mostly used hitherto in the case of electric supply and tramway undertakings. Such Order does not require the sanction of Parliament unless it contains power for the compulsory purchase of land. Besides giving a railway company power to use

electricity, erect generating stations, enter into agreements for the supply of electrical power, and to raise new capital for any of these purposes, the Orders made by the Board of Trade may sanction the modification of working agreements so far as such modification is agreed to between the parties and is consequential upon the use of electrical powers.

Of the advantages of the adoption of electrical power in the case of short-distance "omnibus" or "shuttle" traffic on railways, no doubt can now be felt, in view of the results already obtained by such conversions. As regards main-line traffic there are obvious difficulties to be overcome. Higher speed could doubtless be obtained. The best steam running hitherto in England is that from Euston to Aberdeen recorded in 1895, a distance of 540 miles in 512 minutes. Experiments on the electrical line at Zossen in Germany have given a speed of 112 miles an hour. The tractive force of a locomotive is of course limited by the adhesive weight on the wheels. In the case of an electric train, power can be applied in case of need to every axle. Taking, however, a single engine, the present limit of the steam locomotive would seem to be about 1500 horse power, whilst electric locomotives of 4000 horse power are in regular use. It is calculated, moreover, that an electric locomotive is capable of exerting a tractive effort 25 per cent greater than a steam locomotive for the same weight on driving axles, owing to the uniform turning movement. As regards the cost for short-distance traffic, the possibility of adjusting the power and accommodation to varying requirements forms an important element of economy. Valuable results and data have been obtained in this respect from the working of the suburban system of the London, Brighton, and South Coast railway. The engineers of that company contend that with cheap electricity, and a frequent train service which enables the interest on the capital expended on the conductor system to be divided over a large train mileage, electric traction becomes cheaper than steam, in addition to other advantages. The annual cost of maintenance and repairs is said to be less than half that of steam locomotives. Only one man is needed to drive an electric locomotive; time and space are saved at the termini, as turn-tables become unnecessary, and all electric locomotives standing are available for service without having to be filled and fired up, and no water cranes, ash pits, and coal stacks are required.

At present two systems are in use for railway electric working, viz. the continuous current, and the single-phase alternating-current system. The continuous current is applied on the underground railways of London, the Southport branch of the Lancashire and Yorkshire railway, and the Tyneside branch of the North-Eastern railway. This consists in the use of continuous current at a low pressure of 500 to 600 volts, conveyed to the moving train by an insulated third rail, and returned in some cases (as on the underground lines) to the generating and sub-stations by an insulated fourth rail. Considerations of public safety would seem to prevent much further increase of power by this system, which has done effective service on the lines where it is employed. The other system, which has so far been successfully installed both on the Continent of Europe and in the United States, and on the suburban lines of the Brighton railway, is the single-phase high-tension current carried by an overhead wire and led to earth by the ordinary rails. Those who have had experience of the single-phase as well as the continuous-current system both here and abroad contend that the former is, from an economical point of view, at least as satisfactory for suburban working as the continuous-current system, while it is the only one which lends itself to unlimited extension.

LIGHT RAILWAYS

Legislation having for its object the construction of branch lines of railway in districts from which little traffic could be expected was first initiated to meet the needs of Ireland. In the Famine year, 1847, proposals were made to purchase and extend the railway system of the sister kingdom at a cost of sixteen millions sterling. This plan was not adopted; but exceptional pecuniary assistance has been given to the companies from time to time. This assistance was at first confined to advances from the Public Works loan funds on the security of debenture stocks having a first charge on the net receipts of the undertakings. As the companies concerned became established and prosperous these advances have been repaid. With the view of promoting the construction of necessary branch lines which could not be provided by local enterprise, a system of guarantees was given by baronies for the dividends on a portion or the whole of the share capital required. In some cases the guarantee was given by the landed proprietors interested in a district. Eighteen lines of an aggregate length of 330 miles were built on this system, each having

its own special Act confirming the presentments made by Grand Juries charging the rates of that portion of the country which expected to receive benefit from the railway. The Act of 1883, intended to stimulate the building of these branch lines, provided that the Government would recoup the baronies to the extent of 2 per cent of the guaranteed capital; but it became apparent that even this assistance was insufficient to promote the building of railways in the congested districts. The Act of 1889 authorized the Treasury to make agreements to assist such projects with grants on account to the full amount of their cost. A certain amount of necessary mileage was in this way provided, and has been taken over by existing systems.

To aid depressed agricultural interests in Great Britain also, the Light Railways Act of 1896 was passed to cheapen the cost of construction and stimulate the building of branch lines. The public money aid given is of a mixed character. The Council of any county, borough, or district may advance to a light railway company, either by way of loan, or as part of the share capital of the company, a sum, unlimited so far as the Act is concerned, but to be defined in the special Order authorizing the railway. Also, where such advance has been agreed to be given by the local authority, the Treasury may agree to make an advance to the company of a loan (bearing 3½ per cent interest) not exceeding one quarter of the total amount required for the railway, and not exceeding the amount advanced by the Council. In addition, where it is certified to the Treasury by the Board of Agriculture that a light railway would benefit agriculture in any cultivated district, or by the Board of Trade that by such a railway communication would be established between a fishing harbour and a market, and that, owing to the exceptional circumstances of the district, the railway would not be constructed without special assistance from the State, the Treasury may, if satisfied that an existing railway company will build and work the line, make a special advance, either as a free grant or as a loan.

It can hardly be said that the measure has fulfilled the expectations of its promoters. In their thirteenth report (for 1910) the Commissioners state that a large number of light railways the need for which has been established at public enquiries, and for which Orders have been confirmed by the Board of Trade, have not been proceeded with up to the present date, and as to a large proportion the powers have already lapsed. Whereas forty-six light railways with a length of 375 miles in class A (lines on lands acquired, mostly steam motive power), and fifty-four light railways with a length of 326 miles in class B (lines on public roads, mostly electric motive power), have been constructed, the powers given by the Orders have not been carried into effect in the case of sixty-one schemes with a length of 765 miles in class A and of thirty-five schemes with a length of 210 miles in class B; these powers have finally lapsed for thirty-three schemes (421 miles) in class A and for twenty-four schemes (138 miles) in class B. The chief difficulty in proceeding with schemes already authorized has been in finance, while the failures have had the effect of deterring other proposals. The Commissioners add: "To what extent, and in what way, the policy of the Act should be revised must present a difficult problem; but we may perhaps draw attention to the marked success of the system adopted in Belgium, under which a total length of more than 2000 miles of light railways, constructed with moneys raised on national credit, is already being worked without loss to the State, while a further length of some 2000 miles has been projected".

CHAPTER IV

CANAL CARRIAGE

Introductory—British Canals—Continental Canals—Canal Difficulties—The Royal Commission's Report

INTRODUCTORY

The provision of artificial waterways is of extreme antiquity, and there are traces and records of their construction in nearly all parts of the world. Of the complete network of these means of communication in China, which displays great engineering skill, the Royal Canal, 825 miles in length, took forty-three years to build, and was completed in the year 980. This is one of the earliest works of this description now in use of which particulars are available, but in more ancient times the canal of Necho, in Egypt, connecting the Red Sea with the Nile, was commenced more than 2500 years ago, and completed by the second Ptolemy; and evidences have been found during the construction of the present Suez Canal that an earlier work took practically the same route. Indian canals, used partly for irrigation and partly for transport, date back for nearly 500 years. In Europe there are remains of construction dating from the Greek and Roman eras.

In more modern times, continental Europe has seen a vast development of canal construction to supplement the large mileage of river connection, the Russian system being especially valuable for this purpose. In France and Germany also very large expenditures have been incurred by the State to complete the network of inland navigation.

The improvement of rivers in this country has been from time to time associated with work designed to shorten existing routes or to open up new lines of transport, and as early as 1699 the Aire and Calder Navigation Scheme was devised to make two Yorkshire rivers available for transport.

BRITISH CANALS

It was, however, to the energy and foresight of the third Duke of Bridgewater and his engineer, James Brindley, as we have recalled already in Chapter II, that the first comprehensive plans for English waterways were due. The work, which resulted in a reduction by one-half of the cost of fuel in Manchester, was followed by the more ambitious scheme of a canal between Manchester and Liverpool; and so great was the success of what was known as the Duke's Canal, that within forty-two years of the opening of the first section no fewer than 2200 miles of canals were constructed in England alone. Brindley, who died in 1772, was succeeded in his branch of the profession by Thomas Telford, whose greatest undertakings comprised the Caledonian Canal, connecting the North Sea with the Atlantic, and the Ellesmere Canal, linking up the Rivers Dee, Mersey, and Severn.

This extension of canals led to a considerable reduction in the cost of transport, hitherto conducted by road coaches and wagons. Published lists in 1877 give the comparative rates by the two modes of communication per ton of goods as under: Liverpool to Birmingham, by road, £5; by water, £1, 5*s*. Manchester to Birmingham, by road, £4; by water, £1, 10*s*. Manchester to Derby, by road, £3; by water, £1, 10*s*. Manchester to Leicester, by road, £6; by water, £1, 10*s*. Man-

chester to Newark, by road, £5, 6s. 8d.; by water, £2. The cost was thus in some cases one-quarter of the previous charge.

The Grand Trunk Canal, serving the districts south and west of the Trent, was opened in 1775; by which time an equally important system, the Leeds and Liverpool Canal, designed to overcome the difficulties offered by the central chain of hills, was under way. This work took forty-one years to complete, at a cost of £1,200,000, and included a tunnel 1640 yards long and two long aqueduct bridges. The undoubted advantages of these works, and the success attending their operation, led in 1791-4 to a "canal mania", analogous, though on a smaller scale, to the railway mania of half a century later. Parliament during its sessions of the four years in question passed no fewer than eighty-one Canal and Navigation Acts. Canal shareholders made great fortunes, and shares were quoted at fabulous prices. Published lists of 1792 show that in the autumn of that year Grand Trunk Canals were selling at £350, and Birmingham and Fazeley at £1170. Soar Canal (Leicestershire), at a sale in October, fetched 765 gs.; Erewash Canal, 642 gs.; and shares in the Grand Junction Canal, then only projected, 355 gs. premium. Among the more important systems, including those already indicated, are the Grand Junction Canal connecting the Thames with the Trent, and thus with both the Mersey and the Humber; the Thames and Severn Canal; the Kennet and Avon; the Birmingham system connecting by the Shropshire Union with the Mersey; and the Manchester, Bolton, and Bury Canal. The era of construction extended practically from 1761 to 1820.

There are at present 4053 miles of waterway in England and Wales, made up as follows:—

	Miles.	Chains.
Canals	1927	34
Navigations	1312	77
Estuaries	812	67

They are owned as under:—

	Miles.	Chains.
Independently owned ...	2869	42
Railway owned	965	17
Railway controlled ...	218	39

The independent companies are no less than seventy in number, a fact which is often overlooked by those who complain of the influence of railways in "strangling" the rival and earlier form of communication.

Present Position of Canals

The advent of railways naturally revolutionized the transportation problem, and the history of canals has since been one of decadence. The use of some has been entirely discontinued, and that they have not gone actually out of existence is only due to the fact that physical annihilation is impossible in the case of such works. Others are maintained and are now but little used; but there are some that carry on a fair amount of business, though mostly of a local character. In several cases statutory obligations impose their maintenance, and under this category come some of the systems acquired by railway companies. In others, which form a direct route connected with special collieries or manufacturing districts, the obvious advantages of cheap transport have ensured their continued working. From a theoretical point of view, the cheapness of water transport is undoubted; and navigation by sea or river, where no tolls have to be paid, can always be conducted more economically than by rail, where interest and dividends on heavy cost of construction and equipment have to be met, and upkeep and taxation provided for. Artificial waterways, however, present another problem. Interest on cost of construction has here also to be met. Repairs and cost of water supply have to be provided for, and the important elements of time and speed must be considered, with the further question of delay from the use of locks or the prevalence of frost. There can be no doubt that, under present conditions of travel, passenger traffic has had to be ruled out as a contributory to canal revenues, while railways derive nearly one-half of their receipts (42 per cent) from the coaching department. The question of transhipment, moreover, and of collection and delivery of goods, presents more difficulty in the case of canal traffic than is found on railways.

Canals v. Railways

Nevertheless there is a general feeling among traders and manufacturers that canals should be maintained, extended, or, if need be, subsidized, to keep up an assumed necessity of competition with railway interests and to cheapen transport generally. Complaints as to excessive railway rates have been general since the opening of the lines, and have led to numerous enquiries and constant legislation, until the establishment of the Railway and Canal Commission formed a tribunal especially to try and adjudicate such questions. (See Chapter V of this Part.) Constant pressure has been brought upon the Board of Trade to "do something" for canals, and more than one bill has been introduced in Parliament to the effect that certain of the main waterways should be acquired by a Central Canals Board. The Associated Cham-

bers of Commerce carried a resolution to that effect in 1905. A prolonged enquiry by a Royal Commission resulted in the lengthy report on the subject issued in 1910, which affords a mine of information and suggestion as to canal construction and possibilities.

The Royal Commission on Canals

The Commissioners do not favour the view that the misfortunes of canals are to be traced to the action of railway companies with a view to ending opposition. They say on this subject, in the majority report:—

"The owners of waterways were evidently greatly depressed by the advent of these rivals, especially as the trading community in every part of the country were anxious to obtain the new means of transport as quickly as possible. Under these circumstances the canal directors did what they could to save the interests of their shareholders. Some of them obtained Acts of Parliament to make sections of railway, and in some cases actually built them. Armed with these powers, they were in a position of advantage in negotiations with the railway companies, and frequently sold themselves on terms which have, as it subsequently proved, involved the railway companies in considerable loss. In other cases they failed to obtain these powers, or waited too long before trying to obtain them, and after losing much of their traffic to the railways, parted with their undertakings at a loss. In the majority of cases the canal companies remained independent."

In a separate report the late Sir J. C. Inglis, one of the Commissioners, and then general manager of the Great Western Railway, further expresses the relations between railways and canals as under:—

"It is true that about one-third of the canals came into the possession or under the control of railway companies; but in few instances were the companies entirely free agents in the matter, and in the majority they took over the waterways as a means of surmounting the opposition of still more powerful vested interests which the Government of the day were themselves afraid to face. But such possession or control by the railway companies carried with it an obligation on their part to maintain the canals, and this obligation they have respected, with the result that many waterways which would have been left to become decrepit had they belonged to independent companies are still in working order; while in the case of railway canals that continue to afford advantages from the point of view of local traffic, the companies have spent large sums on improvements, even though they themselves may have had no direct gain therefrom."

Mr. Fay, general manager of the Great Central Railway, further voiced the views of the railways as to canal working:—

"The greatest factor of all telling against canals is, without doubt, that of speed. We are all living from hand to mouth; the consumer, the retailer, the middleman, and the manufacturer all expect—and it gets worse, I think, every day—to telegraph or telephone for a thing to-day and get it delivered to-morrow. That has brought about a state of affairs on railways which has given a goods-train service of which there is no parallel anywhere in the world. There are no goods trains, there is no moving of merchandise, anywhere in the world equal to the moving of merchandise in this country, and you can get as a matter of fact pretty well everywhere, with the exception of extreme Scotland, your traffic that is sent away to-day delivered to-morrow."

CONTINENTAL CANALS

Contrasted with these views a great deal of evidence was given before the Royal Commission as to the relative importance, development, and prosperity of canal enterprise on the Continent. It was shown, for instance, that in France, Germany, and Belgium a decadence took place in canal interests and working during the middle of last century similar to that witnessed in England, and it was assumed there as here canals must succumb before the advent of railways. There has been, however, a remarkable revival of canal enterprise during the last thirty years on the Continent generally.

France

In France, under the schemes formulated by M. de Freycinet, concurrently with railway outlay on a large scale the State expended between 1880 and 1900 no less than £11,210,000 on the improvement of rivers, and £14,600,000 on the improvement of old and construction of new canals. A fresh scheme of expenditure on waterways was inaugurated by M. Baudin in 1903, under which the State is expending a further sum of nearly £8,250,000 on canal reconstruction and extension. The programme has included the standardization of French canals up to a capacity for carrying 300-ton boats.

The total of mileage so improved is 2072, and the carrying capacity of the existing fleet has greatly increased. The new capital is being found under the guarantee of public bodies, and the traffic on the new canals is no longer toll-free, but the State insists that rail rates shall be 20 per cent higher than water rates. It is shown that under the influence of this policy, while the traffic on the railways has risen by 72 per cent, the total tonnage carried by water has grown by 90 per cent.

Belgium

In Belgium the development of the waterway system has been even more extensive than in France. It is practically all State-owned, and from 1831 to 1905 the Government expended £15,810,000 on construction and works, and nearly £5,000,000 on current improvements and maintenance. The traffic pays light dues which almost cover the annual upkeep. The water-borne traffic has been and is still growing at a greater rate than that of railways, the published proportions of the latter being 62 per cent in 1886, falling to 55 per cent in 1905.

Germany

In Germany, as in Britain and in France, canals suffered in the beginning of the railway era. After the war of 1870 and the formation of a united nation, the Government followed the French example of extending internal communications. "The object was", to quote evidence given by Mr. Lindley before the Royal Commission, "to increase the carrying powers of existing waterways from the estuaries of the rivers and from industrial areas to the large towns or districts forming centres of consumption, and by the construction of new lines to give a cheap means of transport to important parts of the Empire for their requirements and their products. The programme that has been evolved, and is now being followed out, is to obtain a network of waterways which will to the east of Berlin be navigable for boats of 400 tons and to the west for boats of 600 tons."

From 1815 to 1906 the Prussian Government had spent £13,180,000 on improving its rivers and £13,300,000 on canals. No tolls at present are charged on the chief rivers, under international and inter-State agreements, but the Government under its programme of 1905 proposed some modification of this system. The law in question sanctions the expenditure of £16,700,000 on inland waterways, the chief purpose being a linking up of three rivers, the Rhine, the Ems, and the Weser. On the system under construction dues are to be charged sufficient to meet the annual outlay and to pay 3½ per cent interest on capital expenditure.

Holland

Holland is *par excellence* the country of canals. Its State-owned routes, which were primarily drainage works, are as free of tolls as the roads; and in addition to local traffic a vast tonnage, both on Dutch and Belgian waterways, comes through from Germany to the sea for ocean transport.

Competition

The question of competition between State-owned railways and canals has naturally received considerable attention at the hands of the Governments concerned, and criticism is not wanting to the effect that the interests of the trading classes might have been better served by expenditure on railways than on canals. In the formation of the Prussian programme of 1905 above referred to, the imposition of dues on river traffic, and also the State monopoly of traction of the new Rhine-Hanover Canal, were adopted by the Government in order (among other reasons) to meet the objections made that, if inland transport by water were made too cheap—(1) It would counteract, by favouring imports especially of foreign foodstuffs, the national economic and protective policy. (2) It might encroach upon the traffic of railways and so upon the net revenue derived by the State therefrom, which is an important part of the whole Prussian public revenue. For these reasons it appears to have been thought desirable that the State should have a power to prevent transport by water, both on the rivers and on the new canal, from exceeding a certain degree of cheapness. The Prussian Government undertook to endeavour to obtain the consent of other States, such as Austria, Bavaria, and Holland, to modify the agreements by which the freedom from dues of traffic on the Rhine and the Elbe is secured.

MAKERS OF MODERN BUSINESS—VI

LORD NUNBURNHOLME (1833–1907); born Charles Henry Wilson; head of Wilson Line, Hull, which was founded by his father; Liberal M.P. for West Hull, 1874–1905; Baron, 1905.

SIR CHARLES MARK PALMER, BART. (1822–1907); born at South Shields; founded Palmer's Shipbuilding and Iron Company at Jarrow; first Mayor of Jarrow, 1875; Liberal M.P. for North Durham, 1874–85, for Jarrow, 1885–1907; Baronet, 1886.

GEORGE PALMER (1818–97); born in Somerset of Quaker parents; with Thomas Huntley founded the biscuit firm of Huntley & Palmer in Reading in 1841; Mayor of Reading, 1857; Liberal M.P. for Reading, 1878–85.

THE HON. SIR CHARLES ALGERNON PARSONS; born in 1854, fourth son of third Earl of Rosse; developed steam turbine; Chairman and Joint Managing Director of Parsons Marine Steam Turbine Company, Ltd.; Proprietor of electrical and engineering works of C. A. Parsons & Co. at Newcastle; C.B., 1904, K.C.B., 1911.

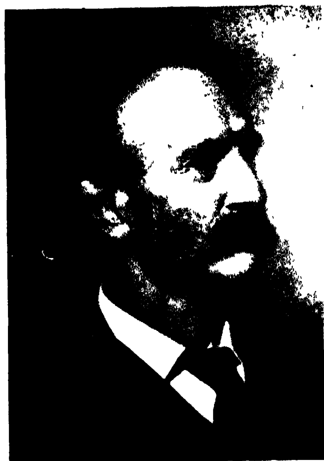
SIR WILLIAM PEARCE, BART. (1833–88); born near Chatham; general manager of Robert Napier & Son's yard on the Clyde, 1864; in 1869 took over shipbuilding business of John Elder at Govan, now the Fairfield Shipbuilding and Engineering Company, Ltd.; Conservative M.P. for Govan, 1885–88; Baronet, 1887.

SIR JOHN PENDER (1815–96); born in Dumbartonshire; at first in textile trade; an original member of Atlantic Cable Company in 1856; greatly extended submarine telegraphy; M.P. for Wick Burghs as Liberal, 1872–85, as Liberal Unionist, 1892–96; K.C.M.G., 1888, G.C.M.G., 1892. (*The portrait is from a painting by Sir Hubert Herkomer, R.A.*)

SIR HORACE CURZON PLUNKETT; born in 1854, third son of sixteenth Baron Dunsany; founded Irish Agricultural Organization Society in 1894; Vice-President of Department of Agriculture and Technical Instruction for Ireland, 1899–1907; K.C.V.O., 1903.

SIR BOVERTON REDWOOD, BART.; born in London, 1846; a leading authority on petroleum; knighted, 1905; created Baronet, 1911.

SIR GEORGE HOUSTOUN REID; born in Renfrewshire, 1845; called to New South Wales bar, 1879; Premier of New South Wales, 1894–99, of Australia, 1904–05; High Commissioner for Australia since 1910; K.C.M.G., 1909, G.C.M.G., 1911.



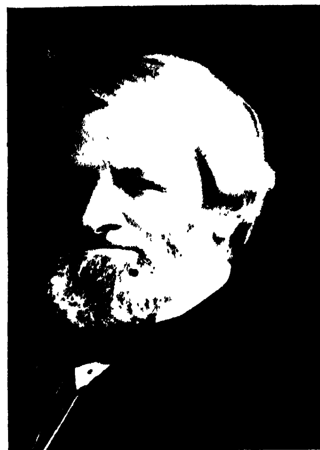
Turner & Drinkwater

LORD NUNBURNHOLME



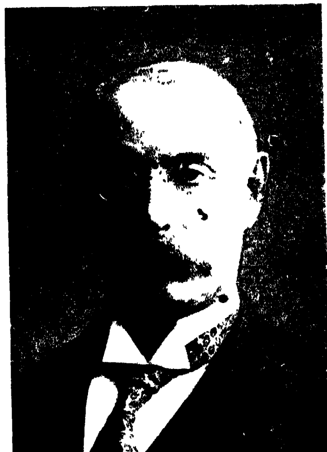
Hornington, South Shields

SIR CHARLES M. PALMER, BART



White & Co., Reading

GEORGE PALMER



Lafayette, Glasgow

SIR CHARLES A. PARSONS, K.C.B.



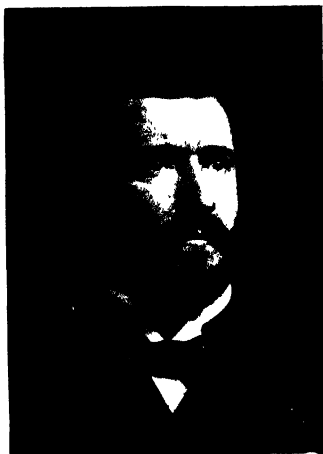
Russell

SIR WILLIAM PEARCE, BART



From Painting

SIR JOHN PENDER, G.C.M.G.



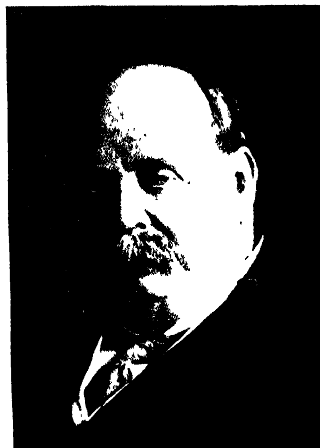
Russell

SIR HORACE C. PLUNKETT



Swain

SIR BOVERTON REDWOOD



Elliott & Fry

SIR GEORGE H. REID, G.C.M.G.

CANAL DIFFICULTIES

State ownership of both systems of transport on the Continent is not, however, the only consideration tending to invalidate a comparison with canal experience in this country. Geographical and physical conditions are vastly different on the two sides of the Channel. Evidence before the Royal Commission brought into prominence the facts that "Britain has 1500 miles south of the Firth of Forth of coast-line, and there are only 50 square miles of country to each mile of coast; there are 111 ports on that coast-line, of which half are capable of taking foreign ships. Some of these ports, such as Hull, Goole, and London, are situated 20, 30, and 40 miles inland. There is no large manufacturing town in England more than 80 miles in a direct line from a tidal port where sea-going vessels are docked. London, the largest town and the largest centre of distribution, is situated on the largest tidal port. Now, to compare that with France: Paris is 230 miles from Havre, and 150 miles from Rouen, the nearest seaport and tidal port, respectively. For every mile of coast-line there are 134 miles of inland country behind, or three times as much as in England. Germany has only 730 miles of coast. The capital, Berlin, is situated 150 miles from Hamburg, its principal seaport, and 90 miles from Stettin, the nearest port. For every mile of coast-line there are 384 square miles of country, or more than seven times as much as in England. Belgium has 43 miles of coast-line, and the principal town, Brussels, is 30 miles from Antwerp, the principal seaport. It has 263 square miles of inland country for each mile of coast. It is evident, therefore, that there is not the same necessity for communication in England by means of inland waterways that there is on the Continent, because every large town in England is situated near the coast, or at no great distance from the coast."

Then again, England is not so adapted naturally for canal construction and operation as are the great level plains of northern Europe, traversed by large navigable rivers. In this country considerable elevations had to be surmounted by locks, entailing heavy cost in construction and working. The contrast in this respect is striking. A barge can pass from Berlin to Hamburg and need only enter locks three times. In England on an average there is one lock for every 1¼ miles of canal. Between Liverpool and Hull rapid navigation is checked by 149 locks in 159 miles on one route, 152 in 149 miles on a second, and 104 in 187 miles on a third. The Warwick and Birmingham Canal has 34 locks in 22½ miles, the Rochdale Canal has 92 in 32 miles between Manchester and Sowerby Bridge. At Tardebigge, between Birmingham and the Severn, there is a series of 30 locks together to overcome a rise of 250 ft. in three miles, and at Devizes there is a similar flight of 29 locks to attain an equal altitude. There are no great rivers to supply the needs of internal navigation, and the cost of water supply to maintain canals at the interior higher levels would prove an obstacle in increasing the dimensions of the waterways. With coastwise competition available in so many cases there are no "long hauls" as on the Continent, where barges cover vast distances without transhipment of cargo. On French waterways the average travel in 1906 was 92 miles. In England the average is only 23 miles, even on such a system as the Grand Junction Canal, which is one of the most prosperous of these undertakings.

THE ROYAL COMMISSION'S REPORT

The report of the Royal Commission and the evidence on which it is based form the most exhaustive statement, as the latest of many enquiries into the position and prospects of canals. Its conclusions had been awaited with much interest, since it is obviously to the public advantage to develop where and if possible the cheaper form of inland transport. To open a choice to the trader and to maintain effective competition would be of national benefit. A majority of the Commission, sixteen members, believe that water transport can be revived at a reasonable cost and on a sound economic basis. Half a dozen others, it is true, make reservations, and two independent reports condemn the project recommended on practical and financial grounds.

A perusal of the evidence brings out clearly the fact that British waterways are not all characterized by decay and disorganization. The Birmingham Canal system has an enormous traffic, though mostly local, and so have the Weaver Navigation, the Shropshire Union, the Leeds and Liverpool, and the Aire and Calder, the last named of which, a canalized river, occupies a unique position for traffic and pays £3, 4s. per cent on its capital. The Grand Junction Canal, without any special advantage from the proximity of collieries or factories, paid 3 per cent on its shares, though this was

to some extent due to the receipt of rents from properties adjoining the canal. The Shropshire Union belongs to, and the Birmingham Canal system is under the control of, the London and North-Western Railway, which had to meet a net loss on the working.

In respect of the system as a whole, the report points out that—

"The entire want of co-operation or organization is no doubt largely due to the fact that most of these companies or authorities are merely toll-takers, and have no other interest in the carrying trade. If, as in the case of railways, the owners of waterways also owned the means of transport and controlled the whole traffic over sufficiently long routes, it is hardly open to question that a far more efficient organization for through traffic would have everywhere come into existence. In days when canal companies enjoyed almost a monopoly of large classes of traffic they were able to receive a good revenue merely by taking the high tolls which they then took advantage of their position to impose. It is vain to imagine that now, when so far from having a monopoly they are at very serious disadvantages in competition with the immense and far-reaching organization of railways directed by the skill of highly-trained and well-paid officials, they can live by the same simple system. Yet most of them have made no attempt either to organize or promote through traffic. . . . The construction of new canals, and the extension or enlargement or modernization of existing ones, has been in abeyance since the opening of the railway period some seventy years ago. Neither the energy nor the means appear to exist. Few canal companies are in a position to obtain fresh capital for any serious enlargement of their undertakings."

A New System

The recommendations of the Majority Report comprise the amalgamation and bringing into working order of Canals, forming a cross extending through the central districts, and constituting four main routes connecting the Midland or Birmingham district with the estuaries of the Thames, Mersey, Severn, and Humber, and linking up the four great ports of London, Bristol, Liverpool, and Hull. These four main routes are indicated in the report as follows:—

Birmingham and Leicester to London (i.e. both to the Thames at Brentford and to Paddington). Improved to the 100-ton standard.

Leicester, Burton, and Nottingham to the Humber, practically a river route. Improved to the 300-ton standard between Leicester and Fradley Junction, respectively, and Nottingham, by the valleys of the rivers Soar and Trent, and so as to enable 750-ton vessels to come up the Trent to Nottingham.

Wolverhampton and Birmingham to the Mersey. Improved to the 100-ton standard. (The Weaver portion is capable of transporting barges of over 400 tons.)

Wolverhampton and Birmingham to the Severn. Improved to the 100-ton standard from Wolverhampton to Stourport, and from Birmingham, via Droitwich, to the Severn at Hawford; and so as to enable vessels of 750 tons to reach Worcester, and of 300 tons to reach Stourport, via the Gloucester and Berkeley Canal and the Severn. (By the Gloucester and Berkeley Canal vessels of 1200 tons can reach Gloucester.)

The system thus indicated, it is suggested, should be vested in a Central Waterway Board and administered by them. As a means of acquiring and working the canals the issue of State guaranteed stock is recommended. If for financial or other reasons the larger works of improvement which the Committee should desire to see commenced at once have to suffer some postponement, the unification of these waterways and the transfer of their administration to the Waterway Board should nevertheless be effected without delay.

The general result is that for all the routes the total cost of improvements and water supply work out at £17,533,910, and the total annual charge at £1,004,181; this includes interest and sinking fund on total cost at £3, 12*s*. 3*d*. per cent, cost of pumping and of management and maintenance. The total annual expenditure after improvement is estimated at £1,098,025, which includes various items of expenditure now borne by the existing companies. Rents and other income amount to £133,462, so that the future revenue required from tolls will be £964,563. The gross revenue from tolls in 1905, the latest year for which the Commission received information, was £434,509. It would thus appear that the additional amount required to obtain a return on the expenditure should be about £530,000. This sum must be obtained from tolls alone, for the new Board is not to act as carrier according to the recommendations of the Commission. The policy to be pursued is to make the improved waterways self-supporting, except so far as interest on the cost of acquisition is concerned, which the State should take on itself. It is recommended that, following the precedent of the Port of London Act of 1908, the stock issued in respect of the transfer and acquisition of the canal companies' property should be in the nature of a free grant

or of a loan with long-deferred date of repayment, or of a combination of the two; that the State should guarantee the stock issued; or that the loans raised for carrying out the improvements should be guaranteed by the State.

With regard to the amount of traffic to be expected, the Commissioners say: "The existing tonnage of these waterways amounts to about 16,600,000 tons. If it is assumed that the average travel is 12 miles, the present traffic amounts to 199,200,000 miles. Additional traffic would be required amounting to 958,800,000 ton-miles to meet the total expenditure when in the course of years the whole scheme of improvement has been completed. . . . The Commission as a whole are unable to state that in their opinion there would be a reasonable direct return on such probable expenditure."

As an element of competition to keep down rates, the recommendations of the Commissioners certainly present some advantages; but opinions are much divided as to the outcome of a policy which, by subsidizing canals at the expense of railways, must inevitably lead to the nationalization of both systems of transport. The Commissioners' proposals, it may be added, have received the most active support from trading interests in and around Birmingham, which would form the centre of the proposed "cross" system of waterways.

A separate report on Irish canals and waterways was subsequently issued in 1911. The Committee say: "The policy of railway acquisition by the State may be adopted in Ireland. In that event State control of Irish waterways would, in our opinion, be necessary for their effective administration both for transport and drainage purposes. And in either event, liberal help, subject in most instances to adequate local contributions, should be given towards effecting the more pressing improvements."

CHAPTER V

THE LAW OF CARRIAGE

Introductory—Private Carriers—Common Carriers—Carriage by Rail—Carriage of Passengers—Carriage of Passengers by Road—Actions for Negligence.

INTRODUCTORY

Carriers are of various kinds, and their liability depends upon their character. The common law of carriers dates from a time anterior to railways, which have become the most ordinary means of land carriage and are the subject of special statutes. Carriage may be a gratuitous service, in which case the carrier is liable only for the effect of his gross negligence. (See also "Bailments", Part III, Chapter VI.) It is unusual, however, for carriage to be performed other than for payment, and the main division is between carriers who undertake by private contract for a particular service, and those who trade generally as "common carriers". The latter, subject to certain defined risks and statutory exemptions, are liable as insurers of the safety of the goods they carry. As regards goods which they profess to carry, railway companies are common carriers; as to passengers, their liability for injury and loss must be shown to be due to negligence.

PRIVATE CARRIERS

Private carriers may carry for particular persons such goods as they undertake for. The terms are then governed by the contract made at the time, and not by the ordinary rules which apply to common carriers.

A private carrier must exercise ordinary diligence in his undertaking. Beyond that he is not liable. For example, he would not be liable for theft or robbery happening to the goods. He must exercise ordinary prudence, and would be liable for his own misconduct and that of his servants. Should the owner, however, accompany his goods and take control of them on the journey, the carrier would not be liable for any loss happening to them. Special liability may be assumed by any carrier in accordance with his contract.

COMMON CARRIERS

A common carrier may be said to be one who undertakes generally to carry for hire the goods of any person who chooses to employ him. He may, however, confine his operations to one particular class of goods, and usually does limit himself to certain places to and from which he carries goods. Of this he must give public notice. In respect of other goods and particular journeys he may then make special contracts like a private carrier. He is a common carrier only as regards named goods or places. In the case of a general common carrier it is immaterial that he carries goods to a place outside the kingdom; his liability is the same.

An ordinary common carrier is bound, with certain exceptions, to accept the goods of anyone, and

no express contract is required to impose liability on him as *insurer* of the goods he accepts. Examples of common carriers are railway and canal companies, so far as goods they profess to carry are concerned, including passengers' luggage but not passengers; the owners of ships trading generally for the transport of goods; barge owners and lightermen carrying generally; and, as to goods regularly carried, the proprietors of stage coaches and of ferries, if they hold themselves out as common carriers; general carriers between town and town by road or railway; and, as regards passengers' luggage, hackney coachmen, &c. A carrier of passengers only, or an ordinary carman and furniture remover who undertakes the removal and carriage of goods on particular orders being given, is not a common carrier.

The duties of the common carrier are to accept the goods for carriage, carry them to their destination, and deliver them to the consignee. His rights are to recover a reasonable payment, and to assist this he has a lien upon the goods he carries. In certain cases, to be noted, a common carrier has other rights in connection with the goods.

Receipt of Goods

The general duties imposed upon a common carrier are to receive goods, unless the accommodation is exhausted, or the goods are not such as he professes to carry or of a dangerous character or of a class which it would be contrary to regulation to carry. Unless he has one of these excuses, he may be sued for refusing to carry. He is bound to charge only a reasonable and fair price all round and treat customers alike. The delivery to the carrier, however, must be at the time he is starting on his journey, or at an admitted place of reception, or to his servants under reasonable conditions.

Special Goods

A carrier may refuse to accept in the ordinary way, and agree to carry only under special contract, goods of a class which he does not profess to carry, or perishable goods, and probably goods which are not properly packed. A common carrier is not bound to carry goods which are very large or exceptional, such as wild beasts. He may agree to carry these by special arrangement. He may always demand a reasonable payment in advance, but is bound by any usual rate of charge or quotation which he may have given. A carrier is entitled to be informed of the contents of any parcel, if the goods come within the Carriers Act (see p. 167). If goods are of a dangerous character the contents must be disclosed. A carrier is entitled to reject goods on a reasonable suspicion that they are dangerous or contrary to regulation, such as a regulation designed to prevent the spread of contagious disease among cattle. A carrier who suffers injury from carrying goods the danger of which has been concealed by the owner may recover damages, either on the ground that there is an implied undertaking that goods are not of a dangerous character, or that there is a duty to communicate their character—*Bamfield v. Goole and Sheffield Transport Company* (1910).

The owner is also liable if the value and risk are fraudulently concealed by the sender, and the carrier is in any case only liable for the declared value. In the ordinary case the sender is not called upon to disclose the contents of a package, but in certain cases this may be necessary. He must himself put up with loss if goods sent are insufficiently addressed, provided that the carrier is not in fault, and has acted reasonably.

Special Contract

Apart from the Carriers Act, applying to special goods, a common carrier cannot limit his liability by public notice; but, except as regards railway companies, a carrier may make a special contract by the delivery of a ticket accepted by the customer. In ordinary cases a customer, however, may refuse the terms and tender the goods, with reasonable payment, to be carried according to the terms of a common carrier. Railway companies are bound, as we shall see (p. 173), to make conditions only which are just and reasonable, and cannot exempt themselves from liability for their own default, and such a special contract must be in writing. A railway company may impose conditions by special contract protecting them against loss by *theft*, as that is not a loss caused by neglect or default of the company or its servants.

Warehousing

A common carrier may also be a warehouseman of goods entrusted to him for carriage at a later time; as to his liability as such, see Chapter VI of this Part. If a carrier places goods received for the express purpose of immediate carriage in his own warehouse he will be liable as a carrier.

Transit of Goods

The liability of the common carrier for loss happening to the goods in the course of transit is excused only by the act of God, that is, fire or tempest, or the act of the King's enemies, by some

inherent vice or natural depreciation in the goods themselves, or by contributory negligence on the part of the owner of the goods. This liability as "insurer of the goods is", as Lord Mansfield said, "to prevent litigation, collusion, and the necessity of going into circumstances impossible to be unravelled". The law therefore "presumes against the carrier, unless he shows that it was done by the King's enemies or by such act as could not happen by the intervention of man"—*Forward v. Pittard* (1785). This case showed that nothing less was an excuse; even for robbery by an armed force the carrier was responsible. The effect of the act of God or the King's enemies is discussed in dealing with "Sea Carriage" elsewhere (see Part VI); but if there is negligence in the carrier the act of God may not excuse the loss, although it may reduce the amount recoverable. It is now also fully recognized that the carrier is not liable in the case of inherent defect or vice in an animal or thing carried, even though his servants may have done something on the journey contributing to the injury. Where during the carriage of an engine one of the shafts broke and, the horses taking fright, the engine was upset, the carriers were held not liable, because the damage resulted from the defective condition of the engine which was unknown to either party—*Lister v. Lancashire and Yorkshire Railway* (1903).

The carrier is excused from loss due to fire when caused by the act of God, as for example by lightning, but not from the effect of fire occurring otherwise, even if his own negligence has not given rise to it. He is also liable for damage caused by robbers and mobs, because he is an insurer. Although not liable for the ordinary change in perishable goods, such as the decay of vegetable or fruit, he will be liable for loss in such goods if due to want of the necessary care he ought to have bestowed, as for not properly disinfecting carriages before receiving live stock. Even when excused from liability for loss, the carrier must continue to take reasonable care of damaged goods. Any loss is presumed to be due to the fault of the carrier, and will fall upon him, until he can displace the onus by showing one of the recognized exceptions.

Diligence and Safety

The carrier warrants the reasonable fitness of the conveyance he uses, and of the accommodation and the servants he provides. He must exercise diligence and the usual dispatch in the carriage of the goods according to their nature, but his first consideration is one of safety. He is not bound to go to extraordinary efforts and expense. "All that can be required of the carrier", said Lord Chief Justice Cockburn in *Nugent v. Smith* (1876), "is that he shall do all that is reasonably and practically possible to insure the safety of the goods. If he uses all the known means to which prudent and experienced carriers ordinarily have recourse, he does all that can be reasonably required of him; and if under such circumstances he is overpowered by storm or other natural agency, he is within the rule which gives immunity from the effects of such *vis major* as the act of God".

While safety is the first consideration, exceptional diligence will be required in the case of merchandise of a special character received as such, as in the carriage of fish, poultry, or live animals.

If the owner clearly assumes custody of the goods himself on the journey, he alone will be liable.

Packing and Addressing

It is the duty of the consignor to pack goods securely, and his negligence, particularly if pointed out by the carrier at the time, may exclude the latter's liability for loss.

The carrier is not responsible for the consignor's negligence in packing or addressing. Improperly packed goods may be accepted subject to special conditions. It has been held to be a reasonable condition that railway companies should not be responsible for goods improperly packed, although there is no alternative rate (see also p. 170). If by careless or defective addressing delay or loss is caused, the carrier is not liable, as where a parcel is addressed to a town, without further indication, and there are several towns of that name.

When goods which have been received by a carrier are missing, the onus is upon the carrier to show he is not liable.

A carrier is answerable under the criminal law for misappropriation of the goods he is entrusted with, even though he does not break bulk.

Carriers with horses are under the old statutory disability, and must not pursue their ordinary duties on Sundays.

Limited Liability of Common Carriers

A common carrier by land may by special contract limit his ordinary liability, and in the case of some goods his liability is limited by the Carriers Act in a certain manner. A common carrier may make a special contract or he may give notice, duly served on the person whose

goods he is about to carry, that he only accepts them on certain conditions.

The terms of such a contract may be clearly brought home to the consignor by the delivery of a ticket on which the conditions are set out; but when a special contract is not actually made, it is a question for a jury whether the goods were sent on special terms or not after such a notice has been served and not dissented from. As we have seen, a common carrier may always make a special contract as to goods he does not profess to carry, and as to goods of a perishable or fragile character.

The Carriers Act

By the Carriers Act, 1830, common carriers by land are not, under certain conditions, liable for the loss of or injury to certain goods—articles of great value in small compass—above the value of £10, unless they are delivered as such, and an increased charge is accepted or agreed to be paid if required. These goods comprise the following: gold or silver coin, gold or silver, precious stones, jewellery, watches, clocks or timepieces, trinkets—meaning articles of ornament rather than use—bills, notes of any British bank, orders, notes or securities for the payment of money, British or foreign stamps, maps, writings, title deeds, paintings, engravings, pictures, gold or silver plate or plated articles, glass—and any article in which glass is comprised, china, silks—manufactured or unmanufactured or wrought up with other materials, furs, or real lace. If such goods are contained in any parcel or package, delivered either to be carried for hire or to accompany a passenger in any public conveyance, and the value of the article contained in the parcel or package exceeds the sum of £10, and such value and nature are not declared at the time of delivery and an increased charge paid or agreed to be paid, the carrier is not liable for loss. The goods must be in a "parcel or package"; but a wagon may be a "parcel" if sent with goods packed in it. The "parcel" may contain goods, some only of which are within the Act, or parts only of certain goods may be within the Act. In such cases a carrier may claim the benefit of the Act as to the goods or parts which do come within it if they have not been declared.

An increased rate must be demanded to give a carrier the benefit of the Act, and such increased rate must be in accordance with the schedule of prices exhibited in a conspicuous place at the office, warehouse, or receiving house of the carrier. Such notice will then be binding on all persons sending parcels. Carriers must give receipts for such an increased rate of charge or agreement to pay, acknowledging the goods to have been insured, or in case of neglect they are not entitled to the benefit of the Act. Such a receipt is not liable to stamp duty. Delivery at any common carrier's office, warehouse, or receiving office is sufficient, as every office used or appointed by such a common carrier for receiving goods is a receiving house under the Act.

If a consignor omits to declare, a carrier can secure the benefit of the Act although he has not exhibited the public notice; nor is the carrier then liable for loss resulting from his negligence, only for his wrongful act. Refusal to declare does not, however, justify the carrier in refusing to carry, but only excuses him from liability.

The Carriers Act does not affect special contracts made by the carrier; nor protect any carrier from liability for loss or injury to goods due to the felonious acts of his servants, or the servants of his sub-contractor. Such a felonious act must be clearly proved, though it is not necessary to bring it home to a particular servant. A special contract may relieve a carrier from all liability. The Act protects a carrier against loss by use of the goods.

Carriers are entitled to require from any party suing in respect of loss or injury proof of the actual value of the contents, and are liable only to such proved value, not exceeding the declared value together with the increased charges paid. "Value" means value to the consignor. "Loss" may be experienced by an owner through non-delivery or delay of goods which ought to have been declared; in such a case the carrier is protected by the Act.

When carriage is by a through contract, partly by land and partly by sea, the carrier is entitled to benefit by the Carriers Act as to land carriage, and by the Merchant Shipping Act, 1894, as to sea carriage. (See Part VI.)

Delivery of the Goods

A common carrier must deliver the goods with reasonable diligence, that is, in the time which he would ordinarily occupy upon his journey. He is entitled to carry them by his usual route, and he cannot be expected to go out of his accustomed course unless a particular rate has been stipulated for. On the other hand, he may deviate for safety. An unusual amount of traffic will excuse some delay. Nobody expects the delivery at Christmas to be quite up to time. The owner may in ordinary cases countermand the delivery or give directions that the goods shall be delivered to another place, and the consignee is presumed to be the owner. A carrier may be responsible for delay in delivering special goods which he has received under

special circumstances, when only the ordinary rate of speed has been maintained: for example, if goods of a perishable character or known to be urgently required are accepted with knowledge of their special condition or requirement, it will not be sufficient to deliver by the ordinary service.

The carrier's responsibility ceases with the effective delivery of the goods. If the goods are to be fetched by the consignee, the carrier is bound to keep them for a reasonable time and give notice of their arrival to the consignee. After a reasonable time he is only liable as a warehouseman. These conditions are usually set out with definiteness in a consignment note (see p. 171).

A carrier by land is ordinarily bound to deliver the goods to the consignee, and his liability ceases if he tenders them to the consignee at a reasonable hour; or if he cannot deliver he must give notice of their arrival. Delivery at the place to which the goods are addressed is sufficient. In the ordinary way delivery must be to the house of a consignee. The carrier who delivers elsewhere is liable for conversion, but there is a constructive delivery if the consignee supplies other means for taking delivery, and if those means fail, the carrier is not then responsible. As we have seen, misdelivery through negligence of the consignor is excused in the carrier. For designedly delivering to another person certain goods addressed to a workman for manufacture, including woollen, cotton, silk, iron, leather, and fur, he may be prosecuted. A carrier who unreasonably withholds goods from a consignee after their arrival is liable in damages.

If a carrier fails to discover the whereabouts of a consignee, he must hold the goods for the consignor. If a consignee refuses to accept delivery, a carrier must act reasonably with regard to the goods, but he is not bound to re-tender the goods to the consignee.

If goods are sent for payment on delivery, the money to be collected by the carrier, the consignee is entitled to a reasonable time in which to inspect the goods.

Actions for Damages

It is usual, in case of default on the part of the carrier, for the consignee to sue for damages in connection with the goods, unless the consignor has retained the property in them, as where they are being forwarded to his agent or to his order. (See further as to damages, p. 177.)

Lien

A carrier has a special property in the goods he carries, and can enforce his claim for remuneration and expenses incurred upon the goods. He can also protect them by action against a third person. He may insure them, and always has a particular lien, and by usage or agreement a general lien, upon them. It is customary for a consignment note to give, not only a general lien, but a right to sell perishable goods (see p. 172). If carriage has been paid by the consignor, a carrier cannot enforce his general lien against a consignee. If the goods pass through the hands of several carriers, and the last carrier is left to recover the charges from a consignee, he can enforce payment of advances made to other carriers by retaining the goods. (As to damages for delay see p. 177. As to lien generally see Part III, Chapter XII, and as to a special lien of railway companies, p. 177. The rights of buyer and seller in goods, and of "Stoppage in Transitu", are treated in Part III, Chapter VI.)

CARRIAGE BY RAIL

Railway companies are controlled by a series of statutes framed to secure the public interests against the undue exercise of monopoly powers.

Construction of Railways

New railway undertakings require the sanction of Parliament by special Act. The Railway Clauses Act, 1845, with necessary variations, is incorporated with such private Act, and provides a general scheme for construction of works; while the Lands Clauses Consolidation Act is also incorporated, giving powers for the compulsory acquisition of land, the price to be fixed by agreement or arbitration. The principal Act has been supplemented by the Railway Clauses Act, 1863, and the Railway Construction Facilities Act, 1864.

It is interesting to remember that in the construction of railways, and in the use of steam, Britain led the way, being followed by the Continent and America.

Undue Preference

Railway companies are bound to carry ordinary goods—tendered at a reasonable time at a reasonable rate—and for the usual classes of goods rates are published and must be adhered to.

The power which railway companies have to demand tolls must not be used for the purpose of

prejudicing or favouring particular parties, or for the purpose of collusively or unfairly creating a monopoly. All tolls must be charged in accordance with what is known as the "equality clause" (Railway Clauses Act, 1845, sec. 90); that is, they must be charged at all times equally to all persons, and after the same rate, whether per ton per mile, or otherwise, in respect of all passengers, and of all goods or carriages of the same description, over the same portion of the line, under the same circumstances. No reduction or advance must be made either directly or indirectly in favour of or against any particular company or person.

Under the Railway and Canal Traffic Act, 1854, sec. 2, it is the duty of railway and canal companies to make arrangements for receiving, forwarding, and delivering "traffic"—a wide term, including passengers as well as goods—without unreasonable delay, and without giving any undue preference or advantage, or subjecting any persons to any undue or unreasonable prejudice or disadvantage. Facilities must be given for through traffic on a continuous route by a combination of railways and canals conveniently situated. The customer has the right of selecting by which company he will send his goods. Complaint may be made, if these facilities are not afforded, to the Railway Commissioners, who may enjoin obedience to orders.

The Railway and Canal Commission Court

The Railway and Canal Commission was established by the Act of 1888 (sec. 2), taking the place of the previous Railway Commissioners. It consists of two appointed Commissioners and three ex-officio members. One of the appointed Commissioners must have had railway experience. Each Court consists of three members, presided over in England, Scotland, and Ireland by one of the judges of the High Court specially appointed for that duty. There is an appeal in England and Ireland to the Court of Appeal, and in Scotland to the Inner House of the Court of Session. The Court sits in London, Edinburgh, and Dublin, and at other places as may be convenient, the central office being in London.

Not only traders but associations of traders, municipal corporations or county councils, port authorities, Chambers of Commerce, and other organizations, are parties before the Court, arguing in favour of lower rates or other facilities.

Reasonable Facilities

Railway or canal companies must afford reasonable facilities for the receiving and forwarding and delivering of traffic upon and from the several railways and canals belonging to or worked by them, and for the return of carriages, trucks, boats, or other vehicles. Although not common carriers of particular goods, railway companies must still afford reasonable facilities for their carriage, and unreasonable conditions will be held invalid. The conveyance of traders' merchandise in traders' own trucks is not generally one of the "reasonable facilities" required; but it may become so whenever a sufficient number of trucks and vans are not provided by a railway company—*Spillers & Bakers, Ltd., v. Great Western Railway* (1911).

Through Traffic.—Every railway or canal company forming part of a continuous line of communication, or having a terminus, station, or wharf near the terminus, station, or wharf of another company, must offer all due and reasonable facilities for through traffic without any preference or advantage, prejudice or disadvantage, and without any obstruction to the public desirous of using the continuous line of communication.

An obligation is imposed to convey through traffic by its receipt under such direction; but companies may make reasonable stipulations saving themselves from liability when the goods are off their own line. Companies are in the habit of accepting liability as regards other railways, but limiting their liability to the point where they hand over to other than railway carriers. In case of loss, proof will be required that injury was sustained while on the defendant's line, unless the loss was on the line of the receiving company or on one for which they were agents for through forwarding. When there is through carriage by rail and sea, and the agent has signed a through bill of lading for goods "received in apparent good order and condition", the onus will be upon the carrier delivering the goods to show that damage was not caused during the transit for which he was responsible.—*Crawford v. Allan Line* (1912).

Complaints.—In default of such facilities, or in case of such undue preference, complaint may be made to the Railway Commissioners. Facilities must include those for the junction of private sidings or branches with any railway, and for receiving, forwarding, and delivering traffic upon and from those sidings and branch railways.

There have been numerous decisions upon these sections. In consequence of these provisions, special allowances and rebates to a class of customer are illegal, nor must railway companies favour traders who are their own agents.

If equal treatment is not accorded, any additional payment may be made under protest, and the person paying may recover it back in case of proved inequality of treatment. If the alleged inequality

is in mileage rates, the Railway Commissioners may take into consideration the fact that one trader has the advantage of alternative routes not open to another, which may justify his being granted lower rates.

A company may also be entitled to charge higher rates for a shorter distance by showing that, owing to such circumstances as a steep gradient, a shorter route is really more expensive. Higher rates may also be charged for conveying goods of a dangerous character.

Where the Commissioners by their judgment condemn the action of a company the effect is not retrospective, but surcharges made for the purpose of creating a monopoly may be recovered and, as we have seen, payments made under protest.

The Commissioners may revise, rescind, or vary any order made by them. An order may be enforced as an order of Court, and by a penalty of £200 a day on failure to obey an injunction or interdict.

Ordinary Liability

As carriers of goods, railway companies are insurers of their safety, in the absence of any special contract. They are, therefore, liable for the goods, subject only to the recognized exceptions which have already been mentioned (see p. 165), as in the case of common carriers. The Carriers Act applies to railways, though they were almost unknown at the time of its passing; and later legislation in special reference to them became necessary. Railway companies are also under the obligation of maintaining their stations, platforms, and premises on which the public are invited in a safe and proper condition, or they will be liable for injuries sustained by persons entitled to use the railway, as well as for injuries sustained through overcrowding of the platform. Any condition to the contrary is unreasonable. Persons may be lawfully using the station—or such parts as are ordinarily open—although not at the time passengers; but hotel porters are not entitled as of right to the use of the stations, and conditions may be imposed upon them and other strangers; such as a requirement for platform tickets.

Where private traders' trucks are used on the railway the company must exercise reasonable care and diligence, or they will be liable for demurrage.

As regards railway and canal companies, the Railway and Canal Traffic Act, 1854, section 7, modifies the effect of the Carriers Act, as it was found that railway companies took advantage of it to make special contracts saving them from liability for their negligence. Railway companies may only make conditions exonerating them from liability by agreement in writing signed by the consignor, and such conditions must be *just and reasonable* in the opinion of a Court or judge before whom any question may be tried. Any other notices, conditions, or declarations made by a railway company are void.

"The result seems to be this," said Chief-Justice Jervis, in a leading case. "A general notice is void; but the company may make special contracts with their customers, provided they are just and reasonable, and signed; and whereas the monopoly created by railway companies compels the public to employ them in the conveyance of their goods, the legislature have thought fit to impose the further security, that the Court shall see that the condition or special contract is just and reasonable"—*London and North-Western Railway v. Dunham* (1856).

Special Conditions

The ordinary obligation of a railway company is to carry goods at reasonable rates and on reasonable conditions. They may refuse, however, to carry articles of a very delicate or fragile character, except under a special contract. But if a special condition is imposed, the burden of showing it is just and reasonable is upon the company.

In a case often referred to, which went to the House of Lords, the railway company gave certain manufacturers notice that they received certain goods subject only to conditions, one of which was that they would not be responsible for marble, unless declared and insured according to value. After correspondence as to rates with the company, the manufacturer's agent was verbally informed of the amounts of the ordinary rate and the insured rate, and he gave instructions to forward the marbles "not insured". They were damaged by exposure to rain. The railway company pleaded a special contract, and that they were not responsible for loss, as the marbles had not been declared and insured.

It was decided that the railway company were liable, on the ground that no general notice was valid to limit the common law liability, which may be limited only on such conditions as the Court determines to be just and reasonable, embodied in a special contract in writing, signed by the owner or person delivering the goods.—*Peek v. North Staffordshire Railway Co.* (1863).

A railway company may, however, impose reasonable conditions in one form of contract, or may exonerate themselves from liability, if it is clear that there is a *bona fide* alternative rate offered at the same time under other conditions. They may carry dangerous or improperly packed or damageable goods and limit their liability for *all* loss,

.... **RAILWAY** **O.R.**

CONSIGNMENT NOTE FOR GOODS TO BE CARRIED AT REDUCED RATES AT OWNER'S RISK

The .... Railway Company hereby give notice that they have two rates for the carriage of the undermentioned Goods, at either of which rates the said Goods may be consigned, at the Sender's option: one, the Ordinary Rate, when the Company take the ordinary liability of a Railway Company; the other, a Reduced Rate, adopted when the Sender agrees to relieve the Company and all other Companies or persons over whose lines the Goods may pass, or in whose possession the same may be during any portion of the transit, from all liability for loss, damage, mis-delivery, delay or detention (including detention of Traders' Trucks), except (1) upon proof that such loss, damage, mis-delivery, delay or detention arose from wilful misconduct on the part of the Company's servants; (2) in the case of such non-delivery, pilferage, or mis-delivery as is hereunder mentioned.

To the .... RAILWAY COMPANY, ... *Station*, ... 19......

Receive and forward the undermentioned Goods, to be carried by Goods Train at the Reduced Rate, below the Company's Ordinary Rate, in consideration whereof I agree to relieve the .... Railway Company and all other Companies or persons over whose lines the Goods may pass, or in whose possession the same may be during any portion of the transit, from all liability for loss, damage, mis-delivery, delay or detention (including detention of Traders' Trucks), except upon proof that such loss, damage, mis-delivery, delay or detention arose from wilful misconduct on the part of the Company's servants. But nothing in this Agreement shall exempt the Company from any liability they might otherwise incur in the following cases of non-delivery, pilferage, or mis-delivery (that is to say):—(1) Non-delivery of any package or consignment fully and properly addressed, unless such non-delivery is due to accidents to trains or fire. (2) Pilferage from packages of goods protected otherwise than by paper or other packing readily removable by hand, provided the pilferage is pointed out to a servant of the Company on or before delivery. (3) Mis-delivery where goods fully and properly addressed are not tendered to the Consignee within twenty-eight days after dispatch. Provided that the Company shall not be liable in the said cases of non-delivery, pilferage, or mis-delivery, on proof that the same has not been caused by negligence or misconduct on the part of the Company or their servants.

I also agree to the Conditions on the back of this Note.

This Agreement shall be deemed to be separately made with all Companies or persons parties to any through-rate under which the Goods are carried.

Signature of Sender or his Representative .... *Address* ....

Owner and Number of Truck.	No. of Invoice	To what Station to be Sent.	* CONSIGNEE.		Number of Articles or Packages.	Description of Goods and Marks.	Weight				Charges paid out.	† State here whether the Sender or the Consignee will pay Charges.
			Name.	Address			tons	cwt	qr	lb.		

* NOTE.—Goods which may be required "To wait order" at any particular Station must be so consigned on this Note.

† If Free Delivery to Consignee is required, please write "Paid Home" in the last column, otherwise the Goods will be held at the Delivering Station for payment by Consignee of the delivery charges.

[NOTE.—This form is in use on the South-Eastern and Chatham Railway, but it is common to all railways in its essentials.]

GENERAL CONDITIONS

1.—The Company will not be liable for loss of or injury done to any goods, matters or things described in the Carriers Act, 1830, unless the particular articles and the value thereof be declared, and an increased charge over and above the charge for carriage be paid as compensation for the risk incurred. If the actual value of the good insured is greater than the declared value, the Company will, in the event of partial loss or damage, be liable only to pay in the proportion which the declared value bears to the actual value.

2.—In respect of any animals, luggage, or goods booked through by them or their Agents for conveyance partly by railway and partly by sea, or partly by canal and partly by sea, the Company shall be exempted from liability for any loss, damage or delay which may arise during the carriage of such animals, luggage or goods by sea, from the act of God, the King's enemies, fire, accidents from machinery, boilers and steam, and all and every other dangers and accidents of the seas, rivers and navigation, of whatever nature and kind soever, in the same manner as if the Company had signed and delivered to the Consignor a Bill of Lading containing such Conditions. And in respect of any animals, luggage or goods so booked through by the Company or their Agents for conveyance by Shipping Companies or other carriers by sea where such carriers by sea are exempted by their Bill of Lading or otherwise from liability for any loss, damage or delay occasioned by the neglect or default of themselves or their servants, the Company shall also be exempted from liability for any loss, damage or delay occasioned by the neglect or default of such carriers by sea or their servants.

3.—No claim in respect of goods, for loss, damage or delay during the transit, for which the Company may be liable will be allowed unless the same be made in writing within three days after delivery of the goods in respect of which the claim is made, such delivery to be considered complete at the termination of the transit, as specified in Condition 6, or in the case of non-delivery fourteen days after dispatch.

4.—When goods are carted by the Company the place of collection or delivery, as the case may be, shall be the place at which goods forwarded from or addressed to the premises are ordinarily loaded into or unloaded from carts, and the servants of the Company have no authority to collect or deliver goods at any other place.

5.—The Company do not contract to provide the services of more than one man (carman) to load or unload goods into or from the Company's cart, and if the goods cannot be safely and conveniently loaded or unloaded by one man, it shall be the duty of the Consignor or Consignee at his own risk and expense to provide the additional power and labour that may be necessary to load or unload the goods.

6.—The transit shall in no case extend beyond (A) the time when goods carted by the Company are unloaded or tendered at the address to which they are consigned; (B) the expiration of 24 hours after notice of arrival of the goods, posted by the Company, is due for delivery to the Consignee in the ordinary course of post, or notice of arrival is given to him personally or delivered at his address; or (C) the expiration of 24 hours after the arrival of the goods at the Station to which they are consigned, whenever the address of the Consignee is unknown.

7.—After the termination of the transit as defined in Condition 6, the Company will thenceforth and subject to these Conditions, hold the goods as warehousemen, entirely at the Owner's risk, subject to the charges mentioned in the next Condition, and the Company shall have a lien on the goods for such charges.

8.—After the termination of the transit, goods carried or conveyed by the Company will be subject, in addition to the charge for carriage, to further charges for demurrage of ..*s.* per truck per day, and ..*s.* per sheet per day, in the case of traffic conveyed in Railway Companies' trucks, and of ..*d.* per truck per day for siding rent in the case of traffic conveyed in traders' trucks or in the case of such goods as are unloaded from the truck, to reasonable charges for rent or services performed, until they are removed from the Company's premises; and similar charges will be made with respect to goods, the delivery of which cannot be effected by the Company in consequence of incorrect or insufficient address. Provided that no such charges shall be made if the Company have not given proper opportunity for the removal of the goods or the discharge of the truck.

When specially constructed trucks are used, ..*s.* per truck per day demurrage will be charged on trucks constructed to carry 15 tons and under 20 tons, ..*s.* per truck per day on trucks capable of carrying 20 tons and under 30 tons, and ..*s.* per truck per day on trucks capable of carrying 30 tons and above.

9.—Consignors ordering trucks and failing to load and order them away within 24 hours after such trucks shall be ready for loading at the station or siding to which they were ordered, will be subject to charges of ..*s.* per truck per day, and ..*s.* per sheet per day for demurrage, for every day or fraction of a day they shall be detained after the expiration of such 24 hours.

When specially constructed trucks are ordered, ..*s.* per truck per day demurrage will be charged on trucks constructed to carry 15 tons and under 20 tons, ..*s.* per truck per day on trucks capable of carrying 20 tons and under 30 tons, and ..*s.* per truck per day on trucks capable of carrying 30 tons and above.

10.—All goods delivered to the Company will be received and held by them subject to a lien for money due to them for the carriage of and other charges upon such goods, and also to a general lien for any other moneys due to them from the owners of such goods upon any account, and in case any such lien is not satisfied within a reasonable time from the date upon which the Company first gave notice to the owners of the goods of the exercise of the same, the goods may be sold by the Company by auction or otherwise, and the proceeds of sale applied to the satisfaction of every such lien and expenses.

11.—All perishable articles refused by the Consignee, or at the place to which they are consigned, or consigned to a place not known by the Company's Agents or servants, or insufficiently addressed, or not paid for and taken away within a reasonable time after arrival, if addressed to be kept till called for, may be forthwith sold by auction or otherwise, without any notice to sender or Consignee, and payment or tender of the net proceeds of any such sale after deduction of freight, charges and expenses shall be accepted as equivalent to delivery.

12.—The Company will not be liable for any loss of market.

13.—The Company will not be liable for any indirect or consequential damages in respect of goods lost, injured or delayed.

14.—The Company will not be liable for any loss of, or damage, or delay to goods resulting from their being not properly protected by packing.

15.—The Company will not be liable for any loss of, or damage, or delay to goods resulting from their being not properly or not sufficiently addressed.

16.—The Company will not be liable if goods are lost, injured or delayed owing to a defect in a wagon not belonging to or provided by the Company, unless such defect arose from the neglect or default of the Company or their servants, or unless the Company or their servants were guilty of negligence in not discovering such defect.

17.—In respect of goods consigned to places beyond the limits of the Company's delivery, the responsibility of the Company will cease when such goods have been delivered over to another carrier in the usual course for delivery.

18.—In all cases where the Company's charges are not prepaid, the goods are accepted for carriage only upon the condition that the sender remains liable for the payment of the amount due to the Company for the carriage of such goods, without prejudice to the Company's rights, if any, against the Consignee or any other person.

19.—In respect of traffic of every description which loses weight in transit through drainage, evaporation or any cause beyond the Company's control, carriage shall be paid upon the weight ascertained at the sending Station.

N.B.—No Station Master or Clerk, or other Officer or servant of the Company, has any authority to dispense with or vary these Conditions.

except wilful misconduct, even where there is no alternative rate.

Consignment Notes

It is the invariable practice of railway companies to accept goods only on the filling up of a consignment note containing the full conditions. An ordinary consignment note is simply a request of the company to "receive and forward by goods train as per address and particulars on this note the undermentioned goods on the conditions stated on the other side", signed by the sender or his representative. A form is then filled up with the name and address of the consignee, number of articles, description of goods and marks, weight, amount paid, and a statement whether the sender or the consignee will pay the charges. A request is often made that if free delivery to the consignee is required, the words "paid home" shall be written in; otherwise the goods are held at the station for payment by the consignee of the delivery charges. Goods which are required to "wait order" at any particular station must be so consigned.

The general conditions set out the non-liability of the company under the Carriers Act, 1830, the provisions as to carriage partly by rail and partly by sea or by canal and sea; that claims for loss, damage, or delay during the transit must be made a certain number of days after delivery, or, in the case of non-delivery, a certain number of days after dispatch; provisions as to collection and delivery, employment of carmen, and the charges for demurrage on trucks. It is usually provided that transit shall not be deemed to extend beyond the time when goods are unloaded or tendered at the consignee's address, or the expiration of a certain number of hours after notice of the arrival of the goods, and that after the termination of transit as thus stipulated the company will only be liable as warehousemen, with a lien for charges. Lien is specially provided for, and also a general lien and a power of sale after notice has been given, and a power of sale in the case of perishable goods without notice.

The conditions may also provide for non-liability for loss of market, indirect or consequential damage, damage through improper packing or addressing, or through defect in a wagon not belonging to the company, unless the default of the company is proved, or goods have been handed to a carrier not a railway company. It is also usually provided that the company's charges, when not prepaid, may be recovered from the sender, without prejudice to any claim against the consignee or other person, and that in the case of loss of weight through drainage, evaporation, or any cause beyond the company's control, carriage is to be paid on the weight ascertained at the sending station. There may be a general intimation, for what it is worth, that the contract is subject to the company's public notices and conditions, and that no station master or clerk or other officer or servant has any authority to dispense with or vary the printed conditions.

Owner's Risk

A special form always has to be filled up when goods are to be carried at reduced rates at owner's risk. The general conditions are similar to those in the case of the company's consignment note. This form we reproduce (pp. 171, 172).

There is a third form of consignment note commonly in use with regard to damageable goods sent without proper protection by packing. On this form the railway company give notice that they are not and will not be carriers of the damageable goods set out in the list which follows except when properly protected by packing, and that rates quoted by the company for the carriage of such goods when they undertake the ordinary liability of a railway company do not apply to those goods except when so protected, but that the sender may, at his option, consign the goods not so protected at the same rate, subject to the conditions in the agreement here set forth.

The list of articles is a long one, and goods outside the list may be refused if not properly protected. The general conditions of carriage are the same as in the ordinary consignment note.

The form of agreement is shown on p. 174.

Reasonable Conditions

The conditions under which railway companies carry goods must be "just and reasonable", and it is a question of fact in each case what are reasonable conditions. It may be taken for granted, where goods are accepted at a lower rate than the ordinary rates, that conditions may be imposed in consideration of the lower payment, the company continuing liable for wilful misconduct.

Examples of reasonable and unreasonable conditions are as follows. A condition that a company will not be liable for damage to horses, however caused, or for loss or detention of a parcel insufficiently or improperly packed, or for wrappers or packages charged as "empties", or in any case for a horse or dog of special value, unless declared, are examples of bad conditions; but if in consideration of a lower rate a condition is imposed relieving the company from all liability for loss or

.... **RAILWAY**

CONSIGNMENT NOTE FOR DAMAGEABLE GOODS, WHEN NOT PROPERLY PROTECTED BY PACKING

The .... Railway Company hereby give notice that they are not, and will not be, carriers of the following damageable goods except when properly protected by packing, and that the rates quoted by the Company for the Carriage of such goods, when the Company undertake the ordinary liability of a Railway Company, do not apply to the said goods, except when so protected, but the Sender may at his option consign the said goods, not so protected, at the same rate, subject to the conditions in the Agreement hereinunder set forth.

(List of Articles.)

To the .... Railway Company, ... *Station*, ... 19......

In consideration of your receiving and forwarding by Goods Train the undermentioned goods, not properly protected by packing, and of the consequent saving to me of the cost of packing, and of the reduced weight of the consignment, and of any other advantage which I derive therefrom, I agree to relieve the .... Railway Company and all other Companies or persons over whose lines the goods may pass, or in whose possession the same may be during any portion of the transit, from all liability for loss or injury to the same, except upon proof that such loss or injury arose from wilful misconduct on the part of the Company's servants. But nothing in this Agreement shall exempt the Company from any liability they would otherwise incur in the following cases of non-delivery, pilferage or mis-delivery, except on proof that such non-delivery, pilferage or mis-delivery has not been caused by negligence or misconduct on the part of the Company or their servants:—(1) Non-delivery of any package or consignment fully and properly addressed, unless such non-delivery is due to fire or accidents to trains. (2) Pilferage from packages of goods protected otherwise than by paper or other packing readily removable by hand, provided the pilferage is pointed out to a servant of the Company on or before delivery. (3) Mis-delivery where goods fully and properly addressed are not tendered to the Consignee within twenty-eight days after dispatch. I also agree to the conditions on the back hereof.

This Agreement shall be deemed to be separately made with all Companies or persons parties to any through-rate under which the goods are carried.

Signature of Sender or his Representative ....

Address ....

Consignee.	Address.	Description of Goods.	Weight.				State here whether the Sender or the Consignee will pay Charges.
			tons	cwt.	qr.	lb.	
....	....	....	......	......	......	......	....
....	....	....	......	......	......	......	....
....	....	....	......	......	......	......	....
....	....	....	......	......	......	......	....
....	....	....	......	......	......	......	....
....	....	....	......	......	......	......	....

damage by delay in transit, or from whatever other cause arising, or for loss of market arising from delay or detention of any train, or loss or damage to live stock owing to suffocation, this is a reasonable condition; and so is a condition that claims for deficiency, damage, or detention shall be made within a certain number of days from delivery, or one that a company will not be responsible for goods beyond their own line. A company are not merely gratuitous bailees of returned empties for the carriage of which they make no special charge.

Conditions extend to steam vessels employed by the railway company; but railway companies owning steam vessels are subject to the requirements as to just and reasonable conditions, whether the goods are carried partly by sea and land or wholly by sea. It is not a just and reasonable condition to exempt a company from liability for negligence in the company or their servants on carriage by sea, if there is no alternative rate.

Exceptional Traffic

Exceptions may arise in the case of specially dangerous goods and if the ordinary trains are full. Railway companies are common carriers, but only in respect of goods which they carry as partly such.

Dangerous Goods.—In the ordinary course a person sending a dangerous parcel or thing is bound to give notice (see also p. 165). Penalties are imposed for bringing dangerous goods on to the railway, namely: aquafortis, oil of vitriol, gunpowder, lucifer matches, or any other goods which in the judgment of the company may be of a dangerous nature. Persons sending such goods without distinctly marking their nature on the outside of the package, or otherwise giving notice in writing, are subject to a penalty of £20. Companies may refuse parcels suspected to contain dangerous goods, or require them to be opened for inspection. Every railway or canal company, with the sanction of the Board of Trade, must make special regulations with regard to the carriage of explosives. A common form of such by-laws is in use.

Quick Service

A company are compelled to carry by passenger or other quick service, milk, meat, game, poultry, and other perishable merchandise for which special provisions are made under Rates and Charges Acts.

Packages of Parcels

The remarks which have been made with regard to the packing and addressing of goods, and delivery for transit at reasonable times, apply to those sent by rail (see p. 166).

It is a common practice for carriers to make up packages of parcels for transmission by rail a certain distance, and railway companies are bound to receive such parcels without demanding a higher rate or opening them, unless additional risk or expense is actually involved.

Extra Care

If special care is required the consignor must notify the railway company, otherwise in case of loss the company will only be liable for damage that would reasonably have resulted to such goods as they appeared to be; where rags were delayed in transit and rendered useless because they had been sent wet, nominal damages only were awarded —*Baldwin v. London, Chatham, and Dover Railway Company* (1882).

Carriage of Animals

Companies must make provision for the carriage of animals, but are not common carriers of animals. They may by special contract limit their liability for loss under the Act of 1854. Every railway and canal company is liable for loss of or injury done to any horse, cattle or other animals (including dogs), or to any articles, goods, or things (including passengers' luggage), in the receiving, forwarding, or delivering thereof, occasioned by the neglect or default of such company or its servants, including agents. This means wilful negligence, or an avoidable act or neglect; not merely mistake or mischance. This liability attaches notwithstanding any notice, condition, or declaration made and given by such company contrary thereto, or in anywise limiting such liability; every such notice, condition, or declaration being null and void.

Liability is limited by the Act in respect of loss or damage of a horse to £50, neat cattle £15 a head, sheep and pigs £2 a head, unless the person sending or delivering declares at the time of delivery a higher value, for which the company may demand a reasonably increased charge. Proof of value lies upon the person claiming compensation.

It is usual to carry animals on the terms of a special consignment note limiting liability—unless special value is declared—as to horses to £10 and cattle to £2. It is also provided that liability shall only attach for the negligence of the company or their servants, not for loss by suffocation, or injury due to trampling or kicking of the animals themselves. A plaintiff must then prove the injury

was the result of negligence; fright caused by an improper mode of carrying or unloading is sufficient. Inadequacy of the vehicle or place of unloading will make the company liable. A contract signed by a person sending a dog to the effect that the company would not be common carriers and would receive dogs only on condition that they were not responsible beyond £2, unless a higher value was declared and a sum equal to 1¼ per cent of that value paid, was decided to be "just and reasonable". Where the value had not been so declared, and a dog was destroyed through negligence of the company's servants, the company was held liable only for £2—*Williams v. Midland Railway Company* (1908).

Under the Diseases of Animals Act, 1894, sec. 23, every railway company must make provision, to the satisfaction of the Board of Agriculture, of water and food, at such stations as are directed, to be supplied to animals and live poultry on the request of the consignor or person in charge. If feeding becomes necessary during transit, a request will be implied, and it is the carrier's duty to feed. Keeping animals without water for twenty-four hours, or a less prescribed period, is an offence in a consignor or person in charge. A railway company can make reasonable charges for the supply of food and water.

Post Office Mails

The carriage of mails is provided for by statute. The Postmaster-General may, by notice in writing, require any railway company to carry by ordinary or special train at hours as directed. Special trains must be supplied exclusively for the Post Office when required. Every railway company must convey by any train mails that are tendered for conveyance by such train, without any notice from the Postmaster-General as to their conveyance.

Railway companies are entitled to reasonable remuneration, the amount in case of dispute to be settled by the Railway Commission Court.

Payment

Companies are authorized to demand payment before acceptance, although this is unusual, if goods are marked "carriage forward" and are of general value. A misdescription of goods in order to avoid payment under the higher schedule is an offence, for which penalties are imposed.

Rates and Charges

Railway companies are entitled to receive from consignors an exact, signed account of the goods, setting forth the number or quality, and particulars of destination. Failure to give such an account, or giving a false account, so as to avoid payment, as we have seen, is an offence.

The conditions under which rates and charges can be made by railway companies for the conveyance of goods and passengers is defined by the Railway Clauses Consolidation Act, 1845. Tolls are to be reasonable, not exceeding those allowed by the special Act. On payment of such tolls all persons are entitled to use the railway. Extras may be charged above the maximum if special services are performed, such as delivery to private sidings or weighing, or if there is detention of the company's trucks. The maximum rate includes the use of trucks for ordinary traffic, not for specially heavy articles, or for coal or injurious articles. These must be conveyed in the trader's own trucks. If a railway company does not provide a sufficient number of trucks for the conveyance of ordinary merchandise, and trader's own trucks are used, the company must allow a rebate—*Spillers & Bakers, Ltd., v. Great Western Railway* (1911).

A list of the actual, not the maximum, tolls must be exhibited in conspicuous places on the stations. The length of the railway must be indicated at each quarter-mile. Where two railways are worked by one company distance is reckoned as for one railway. Where there is a clause in a railway company's Act limiting the rates for certain traffic, which is the result of a contest between two companies, this is not only an agreement between the two companies, but it imposes a statutory duty which any person sending traffic on such a line may enforce.

A company cannot charge for collection and delivery of goods when these services are not required to be performed, except where the rates relate to carriage by some non-statutory method, as in the case of a special offer for the carriage of tailors' clothing by passenger train, as these are goods which a company is not compellable so to carry.—*Stone v Midland Railway* (1903).

A company is bound, on application in writing by the person by whom they have been paid, to furnish particulars of charges made for goods.

A company is also bound to keep at the offices a book of the rates current for the time being, including any special contracts, open to the inspection of any person without fee. Similarly, the classification table of merchandise carried on the railway is to be open to free inspection, and printed copies kept for sale. A notice must be published to this effect at each station, and public notice must also be given of any intended increase in charges. As we have seen (p. 173), railway companies give notice of ordinary rates and owner's risk rates.

Rates and Charges Acts

It became the duty of every railway company under the Act of 1888 (sec. 24) to submit to the Board of Trade a revised classification of traffic and schedule of rates. (See also Chapter III of this Part.) If the classification and schedule are agreed they are embodied in a provisional order, subsequently confirmed by Act of Parliament. Rates and Charges Acts have accordingly been passed for each railway, having more or less common provisions. The Railway Commissioners have jurisdiction to determine what allowance or rebate is to be made from ordinary rates where goods are received or delivered at any siding or branch railway not belonging to the company.

Where it is shown that any railway charged one trader or class lower rates than they charged others for the same or similar services, the burden of disproving a preference lies upon the company. Consideration will be given to whether a lower charge is necessary to secure traffic in the interests of the public. No higher charges can be made for carrying goods a less distance than for carrying similar goods of another person a greater distance.

Where companies have increased their charges since 1892, and complaint is made, the company must prove that such charges are reasonable. The Railway Commissioners have jurisdiction to determine such disputes, and power to award damages. An increase in rates may be justified if it can be shown that after all elements of cost and economy have been taken into consideration the necessary cost per ton carried under uniform conditions is increased without any compensating circumstances —*Smith & Forrest v. London and North-Western Railway Company* (1899).

Complaints may be made to the Board of Trade of unfair or unreasonable charges, or oppressive or unreasonable treatment by railway companies. The Board of Trade may attempt an amicable settlement and appoint conciliators. The Railway Commissioners have power to enforce payment of charges they declare legal, or to award damages. Persons who have made overpayments may sue for their return. An indirect increase of rates, as by an alteration in the method of measuring coal, may also be restrained. A genuine increase in expenses will justify an advance in rates. Port or harbour authorities or dock companies may complain of disadvantages from a railway as compared with the service to other places.

Group rates may be charged. Any number of places in the same district, situated at various distances from any point of destination and departure, may be charged at a uniform rate, if the distances are not unreasonable, or the rates charged do not create an undue preference.

Lien

Railway companies have the ordinary lien for the charges and expenses of goods carried; also under sec. 97 of the Act of 1845, where the line is used by persons for carrying goods in their own carriages, after demand of the sum due for tolls the company may detain and sell carriages or goods belonging to the person from whom tolls are due, as well as exercise their right of action.

By-laws

A railway company may make by-laws regulating the use of the railway. No regulation must authorize the closing of the railway or prevent the passage of engines or carriages at reasonable times, except when the railway is out of repair, or for other sufficient cause.

By-laws must not be repugnant to the ordinary laws. They must be in writing, under the common seal of the company. Penalties may not exceed £5. By-laws require the sanction of the Board of Trade, and when confirmed or allowed must be exhibited, legibly painted or printed and pasted on board, at every wharf or station.

The subject of by-laws comprises the use and regulation of the railway and all stations and approaches thereto. Railway company by-laws tend to uniformity, a code having been issued by the Board of Trade.

Delay in Transit of Goods

In the absence of any special agreement there is no implied contract to deliver goods within any special time. The delivery must be within a reasonable time. Nor is there any warranty that a train that ordinarily arrives at a given time will arrive at that time. (See also p. 179 as to passenger traffic.)

A railway company are not bound to carry by the shortest route, but only by a route which is usual and reasonable.

Damages

If goods are not delivered within a reasonable time the railway company or other carriers are liable in damages. Damages recoverable are such as may fairly and reasonably be considered either arising naturally, i.e. according to the usual course of things, or such as may be fairly and reasonably

supposed to have been in the contemplation of both parties at the time the contract was made as the probable result of a breach of it.

In the well-known case of *Hadley v. Baxendale* (1854), millers had ordered a new crank shaft for an engine, sending the old one as a pattern, and meantime for the want of the shaft the mills were standing idle. The millers arranged with Pickford & Co. for the broken shaft to be conveyed to the engineers as promised with due and proper care and diligence, the carriers' representative being told that the mill was stopped. Through the carriers' negligence the shaft was not delivered, several days' delay took place, and considerable loss resulted through the mills being idle. It was sought to charge the carriers with the loss sustained; but it was not proved that the carriers had knowledge that a loss of profits would result from delay on their part, which would have made them answerable. Under the circumstances they were held not liable.

The measure of damages is to be arrived at by taking the actual loss sustained—the price of goods at the time and place when they ought to have been delivered. The carrier may therefore be liable if the delay leads to a loss of market or fall in the market price, or to a loss of season. The loss of profit is then a natural and probable result of the failure to carry within a reasonable time.

When either the object of the sender is specially brought to the notice of the carrier, or ought in reason to have been inferred, so that the object may be taken to have been within the contemplation of both parties, damages may be recovered for the natural consequences of the failure of that object. When a special purpose ought to be inferred by the carrier may be gathered by the example of cases where goods were addressed to a market or at a certain place to the "Show Ground". In the latter case it was held that the address on the label was sufficient indication of the special purpose, and that the carrier was liable for the loss due to delay.

If the company deliver the goods in a valueless condition they are liable in damages to the extent of the value.

Effective Delivery

The ordinary duty of the railway company is to notify the consignee of the arrival of the goods, if delivery is to be taken at the station. Reasonable time for unloading and removing must be allowed. During this time the company are bound to keep the goods and ensure their preservation. After the expiration of a reasonable time—and it is not easy, in the absence of express stipulation, to say just at what time—the railway company are only liable as warehousemen, and no longer as carriers. Goods cannot be sent to a station to remain "till called for", and impose a liability upon a company after a reasonable time has elapsed. If, owing to the default of the consignee, expenses are incurred by the carrier on the goods, they may be recovered. If the consignee refuses to pay carriage the company may either deliver and sue for it, or retain the goods and enforce their claim by lien. The consignment note provides for all these contingencies. If the consignee does not complain on delivery, it is presumed that goods were delivered in good order. It is therefore common to sign "unexamined".

CARRIAGE OF PASSENGERS

Railway companies are obliged to offer reasonable facilities for the carriage of passengers, but in this respect they are not common carriers, and therefore are only liable to passengers for injuries sustained in consequence of negligence.

Railway companies must provide reasonable and usual accommodation on the trains; and, in every train travelling without stopping more than 20 miles, efficient means of communication between passengers and servants in charge of the train as the Board of Trade may approve; also smoking compartments for all classes.

Under the Cheap Trains Act, 1883, conveyance must be provided for His Majesty's forces and their baggage at reduced fares, and proper third-class accommodation and workmen's trains. Companies must provide the same facilities for a person having a contract for carriage with the military authorities.

The Board of Trade may hold an enquiry into the provision of cheap trains and workmen's trains on any line, and a proper and sufficient accommodation may be compelled. The matter will generally be referred to the Railway Commissioners, and consideration (see also Chapter III of this Part) is given not only to the ability of workmen to pay, but to the circumstances of the railway company, cost of running, construction, and maintenance. In cheap trains, children under three accompanying a passenger must be carried free, and children under twelve at half-price, and this is an invariable rule applied to all trains.

Railway companies, unless empowered by special Act, cannot become omnibus proprietors.

Tickets and Fares

The ticket is the evidence of the contract, unless it contains terms not reasonably brought to the notice of the passenger. The journey must be performed within the scheduled time, or within a reasonable time, or a passenger has a right of action; but subject to the conditions incorporated with the time tables.

A ticket between two stations gives in the ordinary way no right to alight at an intermediate station.

Fares must be exhibited at the booking office. Every passenger must, when requested by an officer or servant of the railway company, produce or deliver his ticket, or pay his fare from the place whence he started, or give his name and address; in default he is liable to a fine of 40*s*. On refusal to comply with one or other of these requests, he may be detained until he can be brought before a magistrate.

Any person who travels or attempts to travel without having previously paid his fare, or exceeds the distance for which he has paid his fare, with intent to avoid payment; or having failed to pay his fare, gives a false name and address, is liable to a fine of 40*s*.; or on a second or subsequent offence, to a fine of £20 or imprisonment for one month.

Every ticket must have the amount of the fare printed or written upon it.

Delay on Journey

The duty of a carrier of passengers, as we have seen, is to deliver them in a reasonable time at their journey's end.

Granting a ticket does not impose upon a railway company the duty of having a train ready to start at a particular time. The issue of time tables, however, amounts to an express contract, although it is usual to stipulate that the company do not warrant the departure or arrival of trains at the specified times. Such a condition in a time table, coupled with the intimation that the company will not be liable for loss or inconvenience arising from delay, will exonerate the company. Companies cannot, however, in this way contract themselves out of a reasonable fulfilment of their obligation. They are not liable merely because a train is late, but if negligence is shown they will be answerable. There are many circumstances over which railway companies have no control, such as the state of the weather, which would justify lateness of trains.

A passenger who finds himself injuriously affected by the failure of a railway company to run a train in accordance with their time tables must act reasonably. Where a passenger found that a train advertised to run from a certain junction had been discontinued without notice, he was justified in claiming damages for loss of time due to his failure to reach his destination, the company being liable on a representation that a certain train would run, which was false to the knowledge of those making it and calculated to induce the plaintiff to act as he did—*Denton v. Great Northern Railway* (1856).

On the other hand, where through the lateness of a train a passenger failed to connect with the train he desired, but could have taken another train with two or three hours' delay, he was held not justified in incurring the expense of a special train. And this was so decided on the ground that it was not a reasonable expense incurred according to the ordinary habits of society, and what such a person, delayed on his journey under circumstances for which the company were not responsible, would have incurred in expenditure on his own account—*Le Blanche v. London and North-Western Railway* (1876). If one person does not perform his contract, the other may on general principles do so for him as reasonably near as may be, and charge him for the reasonable expense incurred in so doing—but no more.

A passenger who has a ticket issued for a special train, as, for example, an excursion train, is justified in demanding room on the train, or on another train within a reasonable time.

Damages

Assuming a passenger to be entitled to damages, damages must be such as might have been in contemplation by both parties, and not the special consequences of a loss through failure to keep a business engagement; although where a train is run for a particular purpose, as on a market day, a reasonable business loss may be taken into consideration. In assessing damages personal inconvenience may be taken into consideration, but not mere annoyance or disappointment; though if the probable consequence of the default of the company is illness, this may be considered.

Expenses incurred at a hotel, or in taking a carriage, or on any alternative means of arriving at the journey's end, may be recovered from the company in default.

Provisions for Public Safety

Accidents must be notified to the Board of Trade, and an enquiry is held into the cause of serious accidents by a Board of Trade inspector.

The Board of Trade has made rules under the Act of 1900 to regulate the carrying out of dangerous railway operations.

An annual return with regard to railway accidents is made to Parliament and published.

In addition to the ordinary provisions which are enforced by the Board of Trade, special powers have been conferred by the Act of 1889 whereby the Board of Trade may require the adoption of the block system on railways conveying passengers, and the use of continuous automatic brakes on passenger trains. Railway companies are required to make a return twice a year to the Board of Trade as to the use of brakes.

Passengers' Luggage

Railway companies are common carriers of passengers' luggage, which, within the limits of weight allowed, they must carry free of extra charge when the owner travels with it, the fare including payment for this. What constitutes passengers' luggage has been the subject of much litigation. Passengers' "personal luggage" means whatever passengers would take on the journey for their personal use or convenience, according to the habits or wants of their class, either with reference to the immediate necessities or the ultimate purpose of the journey—*Macrow v. Great Western Railway Company* (1871). It includes nothing in the way of merchandise. Bedding, bicycles, artists' sketches, typewriters, gramophones, &c., are not personal luggage. Companies are entitled to make, and do make, special regulations as to the carriage of these articles when accompanied by a passenger. A company is clearly liable for luggage conveyed in the van; but not for that taken in the carriage, if the passenger has assumed control over it and it is lost through his carelessness.

If goods other than of a personal character are conveyed as personal luggage, the company are not liable unless they permitted their carriage. Personal luggage of a passenger may be prohibited on excursion and special cheap trains, or if it is taken extra payment may be exacted. Companies are liable for the personal luggage of a servant, although he is not paying his own fare, and for the master's luggage which he takes when he does pay his own fare if reasonable care has not been taken—*Meux v. Great Western Railway Company* (1895).

The Carriers Act applies to articles taken as personal luggage (see p. 167).

It is the duty of a company to carry the luggage through in the event of any change being necessary, and deliver to the passenger on arrival.

A passenger who takes a through ticket from one line to another and loses his luggage on the second line is entitled to sue that line for breach of duty, although his ticket was issued by the first line.

If a railway company offer to carry special luggage, such as commercial travellers' samples, by passenger train free of charge, on condition that the company are relieved from all liability for loss, damage, misdelivery, or delay, and if no special contract is actually signed, such a condition is null and void, and the company are still liable for loss through the negligence of their servants—*Wilkinson v. Lancashire and Yorkshire Railway* (1907).

It was decided, in the case of *Great Western Railway v. Bunch* (1888), that a railway company accepting passenger's luggage to be carried in a carriage with the passenger enter into a contract as common carriers. This general rule is subject to modification if loss results through want of care in the passenger himself when he has taken goods under his immediate control.

Apart from the question of what is personal luggage, the only other important consideration is —when does it come into the custody of the railway company. If porters are employed in the ordinary way to receive luggage from passengers on their arrival at a station and carry it from the cab to the train, the railway company are responsible from the time of the receipt of the luggage by the porter; but where luggage is simply received by a porter from an intending passenger without reference to any train, and is left on the platform or otherwise lost, the company are not responsible.

The question is, what is a reasonable and proper time before the departure of a train for luggage to be handed to a porter. If the luggage is labelled or accepted for the purpose of labelling by a porter the company are liable, although a passenger has not yet taken a ticket. Companies might make regulations as to such time, or require at a terminus that the train should be actually at the platform. It would be unreasonable to expect that a person should arrive at a station a long time before the train starts, and fix the railway company with liability for luggage all that time. For this purpose the railway companies have provided cloak rooms.

If the company discharge their duty and deliver the luggage at the end of the journey, it is the passenger's duty to take charge of it. If it is left, the company's liability will be, at least, no greater than that of warehousemen, and they may not be liable at all, as when luggage is given to a porter to look after instead of being placed in the cloak room.

Cloak Rooms

The rights and liabilities of a railway company as regards goods deposited in a cloak room are those of warehousemen, though an ordinary carrier may continue to be liable as insurer for goods put into warehouse for a reasonable time. If there are

no conditions, a warehouseman is liable for the entire value of goods deposited, for loss or injury or misdelivery, though not for mere consequential damages. It is, however, the invariable custom to limit the liability as regards railway cloak rooms by contract printed upon the ticket, which must be brought to the passenger's notice in some way. A passenger who is aware that conditions are printed upon the ticket, but does not trouble to look at them, is bound by them, assuming that they are reasonable conditions. Where conditions are impressed upon the cloak-room ticket limiting liability, it is always a question of fact in each case if the conditions came to the notice of the depositor. A passenger will be bound by the conditions if a jury are of opinion that under the circumstances the company had given reasonable notice that there were conditions—*Parker v. South-Eastern Railway* (1877). The onus is upon the company, however, to show that a person accepted a ticket otherwise than as a mere receipt, and that he read or ought to have observed the conditions. The fact that he had previously used the cloak room, and had experience and knowledge of such conditions, may fix him with notice; also that the face of the ticket bore a distinct reference to conditions on the back.

A condition that the company will not be liable for more than £10 unless the value is declared, covers damage to goods as well as loss. Such a condition is within the Carriers Act, and unless such value is declared the company are not liable for loss due to their servants' negligence. If there is a condition that the company will not be liable for any article over £5 unless its value is declared and an additional fee paid, the company are not liable if such an article not declared is lost through being left outside the cloak room.

The liability of the company is to the person who is travelling with the luggage, or who has deposited it, or whose luggage has been received for carriage in advance. The company has a lien for charges on luggage rightly deposited at the time, even against one who may be the true owner.

CARRIAGE OF PASSENGERS BY ROAD

A general carrier of passengers is probably bound to accept any passenger offering himself who is in a fit condition, provided there is room in the conveyance. Such a carrier undertakes for reasonable speed and reasonably competent drivers, suitable accommodation and horses or other means of propulsion. He must accept the usual passengers' luggage.

In London the drivers of hackney carriages plying for hire are bound to convey any passenger as required within six miles, or if engaged by time, 4 hours.

Omnibuses, when not full, are similarly bound to accept passengers.

Outside London the regulation of such traffic is in accordance with by-laws made by the local authorities.

ACTIONS FOR NEGLIGENCE

We have discussed the position of common carriers of goods, who, being insurers, are, with the exception of very few risks, liable for loss happening to goods (see page 167). Carriers of passengers, however, are not insurers, and are only liable for loss which is due to their negligence. The duty of railway companies is to take due care, including in that term the use of skill and foresight, to carry the passenger safely, and there is no warranty that the carriage in which he travels shall be in all respects perfect for the purpose. There is no warranty that a carriage or engine is free from all defects likely to cause peril, and a company are not liable if the defect was such that no skill, care, or foresight could have detected its existence—*Readhead v. Midland Railway Company* (1869).

A person may sue for injuries to his wife or servant, and in certain cases the dependants of a person killed may maintain an action; but the subject generally of negligence has been discussed elsewhere (see Part III, Chapter XXII).

Numerous actions against railway companies have been due to the fact that a train has overshot the platform, it being a question in such cases whether there has been an invitation to alight, or whether the servants of the company have acted with the required care under such circumstances.

Railway companies are not generally liable for anything which is due to the exercise of their statutory powers, unless negligence is proved; but under the Act of 1905 they are liable to make compensation for damage to agricultural land or crops injured by sparks or cinders from their engines.

AUTHORITIES.—*Browne and Theobald*, "Law of Railway Companies". *Macnamara*, "Law of Carriers". *Disney*, "Law of Carriage by Railway".

CHAPTER VI

DEALING WITH THE RAILWAYS

Introductory—Practical Hints for the Consignor—Practical Hints for the Consignee—A Railway Trader's Rights and How to Secure Them

INTRODUCTORY

Until quite recently the average manufacturer was apt to leave his traffic matters very much—if not entirely—to chance or to the incompetent control of someone who knew little or nothing of traffic management, but the modern business man realizes quite clearly that the systematizing of both production and distribution must necessarily go hand in hand if one is to compete successfully in the open market.

Even to-day traders may be heard to declare that their profits are swallowed up in railway charges, or that the railway companies are treating them unfairly or oppressively in some way or other, without ever pausing to consider whether they—the employers of these carriers, and such of course they are—are in any way responsible for this state of affairs. They never think, these grumblers—and it will take a long time to convince them—that the fault lies, in most cases, at their own door; but such is the fact, nevertheless, because they do not take such steps as are necessary for their protection when dealing with the railway companies. It is certainly not the business of a railway company to instruct the trading community how to get their merchandise from place to place at the lowest possible cost, because they have their own economics to attend to; nor can they be expected to say what the users of railways must do if they wish to protect their own interests. These matters are, of course, the sole concern of the traders who employ these railway carriers to convey their goods.

This chapter is written for the information of those sagacious men who are anxious to systematize their traffic department along approved lines, and so ensure that they shall not pay a halfpenny more than the legitimate charge for the carriage of their goods, and that the railway companies will settle their claims promptly, listen attentively to their applications for greater facilities or the like—in a word, treat them in a just and reasonable manner in every respect.

PRACTICAL HINTS FOR THE CONSIGNOR

Concerning Packing

The necessity for careful packing needs to be specially emphasized, because so many traders fail fully to appreciate what negligence in this connection involves. It is commonly believed that no special obligation rests upon the consignor of goods in this respect, but of course that belief is entirely erroneous, the truth being that it is the duty of every consignor to pack his consignments in such a manner as to ensure their safe transit under ordinary circumstances. But although in this chapter it may be necessary to speak of the legal aspect of the various transportation problems, we are not going to talk so much about law as about actual practice (see Chapter V of this Part). Let us suppose, for the purpose of illustration, that a certain manufacturer dispatches to one of his customers a parcel of goods not over-securely packed, and that, owing to rough usage during

transit, the package comes apart and the goods get damaged. The manufacturer will submit a claim to the railway company for the damage sustained, and in due course, in accordance with well-established precedent, he will receive a stereotyped reply to this effect:—

"With reference to your claim dated the 23rd *ultimo* for goods alleged damaged in transit by rail, we have made enquiries, and find that the package in which these goods were contained was of such a frail nature that it fell to pieces in the ordinary handling of the traffic during transit. Such being the case—as the goods were not securely packed, and as no negligence on the part of this company has been proved—we regret we are unable to pay your claim."

That is what actually happens in practice, and the wise will therefore see that no fault rests with them.

But when damage arises from this cause, a railway company cannot legally set up such a plea, for the Courts have held that if a railway company consider a package insufficiently secure to stand the journey by rail it is their duty to refuse to accept it unless at the owner's risk, and this decision can always be quoted with effect in support of a claim of this kind.

How to Consign

This needs careful attention for many reasons. Thus, as will be seen by the accompanying specimen consignment note (see Form 1), the consignor is asked to say hereon what is the consignee's full name and address, and also to what station the consignment is to be sent; and if he, either accidentally or purposely, declines to give these particulars, he may stand to lose if anything goes amiss. In the case of the *Caledonian Railway Company v. Hunter* (1858) it was shown that a parcel of goods was handed to the railway company addressed simply to "William Rae, Draper, Sudbury". As there are several places named Sudbury, in the absence of definite instructions the railway company, in accordance with the usual practice of the carriers, sent the parcel to the nearest town of that name, i.e. the one in Derbyshire, but on arrival there the consignee could not be found. After some considerable time had elapsed it was discovered that the consignee resided in Sudbury, Suffolk, and to that place the parcel was accordingly sent; but it was refused, owing to the fact that the goods had been so long in transit. The consignor thereupon sued the company for damages, but the Court held that the company did quite right in sending the parcel to the nearest place of that name; also that the carriers had done all that was reasonable and proper, and that the delay was due entirely to the fact that the consignment was not fully directed. The consignee's claim was dismissed. It is clear from this decision (1) that each package dispatched by railway should be very fully addressed on the label, and (2) that these particulars should be accurately copied on to the forwarding note, so that if the consignment gets separated from its waybill the checkers may know to whom it belongs, and forward it on with all speed to its destination.

Frequently consignments are forwarded simply under mark—the object of the sender in so doing being to prevent his competitors from knowing to whom the goods are going; but this is a practice which, for obvious reasons, is not encouraged. The danger of one's business secrets leaking out through packages being properly directed is purely imaginary.

State Description of Goods

It will be observed, too, that the sender is asked to say how many packages go to make up the consignment, and what the packages in question contain. No sane man will hesitate to say whether there are two or more packages in the consignment —to ensure the correct number being delivered to his customer he will answer the question truthfully; and although the sender is not bound to say what the parcel which he wishes to be conveyed by railway actually contains—unless it be explosives or the like—he should make a full disclosure of its contents, for this reason: different classes of merchandise are chargeable at different rates, and if the consignor refuses to say what the parcel contains, the company are entitled to charge carriage at the highest rate; for what Part 6 of the Railway Rates and Charges Act, 1891, says is:—

"If the consignor of a small parcel declines, on demand by the company, to declare to the company the nature of the contents of the small parcel before or at the time when the same is delivered to the company for conveyance, the company may charge for the parcel as if it was wholly composed of articles comprised in Class 5 of the Classification."

It is also essential that the particular nature of the goods should be stated so that the station invoicing clerk shall know which rate to apply. A generic term is not sufficient, as will be seen when it is explained that, for instance, "Castor oil, for lubricating machinery," is chargeable at Class 1, "Neat's Foot Oil" at Class 2, "Oils (not Dangerous)" at Class 3, and "Oils, essentials," at Class 4. In practice, when there is any doubt as to the precise nature of a certain parcel of goods,

Form I

GREAT WESTERN RAILWAY

Pro. No. ....

CONSIGNMENT NOTE

.... Station, ... 191.....

The Great Western Railway Company are requested to Receive and Forward, as per address and particulars on this Note, the undermentioned Goods, on the conditions stated on the other side. This Agreement shall be deemed to be separately made with all Companies or persons, parties to any Through Rate under which the Goods are carried.

Signature of Sender or his Representative .... *Address* ....

Owner and No. of Wagon.	Date of In-voice.	Information in these Columns to be filled up by Sender.				Ticking Column.	Information in these Columns to be filled up by Sender.							For use of Railway Company's Staff only.				
		To what Station to be Sent.	Consignee's Name and Address.	State if to be delivered by Company or "To wait order" at Arrival Station	Who Pays Carriage.		No. and Description of Goods.		Mark.	Weight.				Rate per Ton.	Collection.	Paid on.	Paid.	To Pay.
							No.	Description of Goods.		tons.	cwt.	qr	lb.					

NOTE.—Goods which may be required "To wait order" at any particular Station must be so consigned on this Note.

the highest rate applicable to that particular class of merchandise is always applied, and the following illustration shows at a glance how the charges on a 1-cwt. parcel of these goods (oils) are affected by the description given on the consignment note:—

Declared as "Castor Oil, for lubricating machinery"	at 50s.	3s. 2d.
Declared as "Neat's Foot Oil" ...	at 60s.	3s. 8d.
" "Oil, not dangerous" ...	at 70s.	4s. 4d.
" "Oils, essentials" ...	at 80s.	5s. 0d.
" simply as "Goods" ...	at 90s.	5s. 6d.

As to penalties for false description, see Chapter V of this Part.

State Weight and Who Pays Carriage

It is not generally known, but it is a fact nevertheless, that the railway companies are empowered, under Section 5 of the Railway Rates and Charges Act, 1891, to charge for the weighing of merchandise, though in this matter they do not stand on their legal rights. Whenever it is possible to do so, however, the actual gross weight should be stated on the consignment note, so that there may be no mistake in calculating the charges. And that an extra 1 lb. makes a considerable difference in the charges will be seen from the following illustration:—

cwt.	qr.	lb.			
0	2	0	at 50s.	per ton,	1s. 10d.
0	2	1 (reckoned as 2.14)	at 50s.	"	2s. 2d.
1	0	0	at 100s.	"	6s.
1	0	1 (reckoned as 1.0.14)	at 100s.	"	6s. 8d.
1	2	0	at 150s.	"	12s. 3d.
1	2	1 (reckoned as 1.2.14)	at 150s.	"	13s. 3d.
2	2	0	at 200s.	"	26s. 1d.
2	2	1 (reckoned as 2.2.14)	at 200s.	"	27s. 4d.

These differences are accounted for by the fact that "for a fraction of fourteen pounds in weight, the company may charge as for fourteen pounds in weight". Comment is needless.

It sometimes happens that delay in delivery is caused through the omission of the consignor to say who is actually responsible for the carriage of a parcel. In the event of a consignee not having a monthly account with the railway company, the company are entitled to hold a consignment of goods addressed to him until payment of their carriage charges is forthcoming; and hence, to avoid any annoyance to one's customers through being asked for payment of a charge for which they are not responsible, it should be clearly stated in each instance who is liable for the company's charge for conveyance.

Risk, Route, and Receipt

There are two rates for the conveyance of the majority of articles by railway—one known as the "company's" risk, and the other as the "owner's" risk rate. (See also Chapter V of this Part.) The goods train owner's risk rates vary from 5 to 20 per cent lower than the company's risk rates; whilst the passenger train (or parcel) owner's risk rates are generally 40 or 50 per cent lower than the company's risk rates. The object of sending goods at the owner's risk is, of course, to reduce the cost of conveyance, and obviously great economies can be effected by consigning traffic in this manner; but the owner's risk conditions of conveyance are one-sided. They provide, shortly, that the owner undertakes to relieve the company from all liability for whatever may happen to the goods during transit, except upon proof that the damage, loss, delay, or whatever it may be, arose as the result of "wilful misconduct on the part of the company's servants".

Years of experience have proved that it is practically impossible for the trader to fulfil these conditions when a loss occurs. Still, definite instructions should always be given as to whether the parcel is to be carried at the company's risk or the owner's risk, as, in the absence of notification to the contrary, the higher rate is always charged, and a reduction in the charges will not afterwards be made.

As to routes, it has been held by the Railway Commissioners that "the natural right of the company which first gets hold of the traffic is to convey it as far as it can on its own line, and then, at the point which is most convenient to itself, to hand it over to the company which has to forward it", but when a consignor desires a parcel to be forwarded in a certain way so as to ensure its quick delivery, he should give instructions accordingly; then, if a delay occurs, the company are liable.

Finally, the consignor should be careful to secure a receipt for each parcel which he forwards by rail, because the first thing a claimant must do when he sues a railway company for (say) goods lost in transit is to prove that the things were really handed to them for conveyance—a task not always easy of accomplishment in the absence of the receiver's signature.

In passing it may be observed that it will be found a convenient practice to procure a bundle of consignment notes from the railway company, and then to write the documents in duplicate by means of a piece of carbon paper. These consignment notes are supplied gratis by the companies in bundles of five hundred, and they can very easily be fastened together in book form at the left-hand

side, and afterwards covered so as to protect the leaves. As will be seen later on, this home-made book comes in very useful for checking purposes.

PRACTICAL HINTS FOR THE CONSIGNEE

On Receiving

What the consignee has continually to bear in mind is this: ignorance of the law is no excuse, and if he omits to protect himself at the time he accepts delivery of a parcel from the hands of a railway company—and in this respect it matters not whether the consignee fetches the consigment from the station himself, or allows the company to deliver it to his premises—the chances are a hundred to one that he will be unable to recover anything by way of compensation, if it is discovered later on that loss or damage took place during transit. And the reason why the railway companies refuse to yield, except under pressure of overwhelming proof of liability, is this: they have been called upon to meet so many demands which could not be legitimately pressed against them that it has been laid down as a hard-and-fast rule that unless a claim is backed up by incontestable proof of the company's liability the demand cannot be met. They do not say, "Your claim is unjust", but, in effect, "We have no proof, nor have you given any proof, that it is just. A claim cannot be admitted as evidence of its own genuineness—hence our refusal." It therefore behoves the consignee to protect himself in the manner detailed hereunder.

Packages to be Examined—

Before a package is accepted from the hands of the railway company, or rather before the parcel is signed for, it should be submitted to the closest examination, and if anything is noticed amiss—say, for example, that the lid of the case appears to have been lifted and shut down again, a board prised up and refixed in position; or, if it is a bale, that the wrapper appears to have been undone and then fastened up again; or if the package is damp, or loose, or damaged in any way, the carrier should be notified there and then, that is to say, at the time of delivery, and the fact recorded in the company's book when the consignment is signed for. Say the case contains glass lamp shades, and it is observed that the package rattles, as if the contents are smashed, the consignee should place the remark "contents rattling" against his signature in the carman's book. His qualified signature will then substantiate his claim.

If this be not done, and the consignee thinks he will wait and find out the full extent of the damage before he lodges a complaint, he will probably receive this sort of reply:

"With reference to your claim for lamp shades alleged smashed in transit on the 20th *ultimo*, we beg to inform you that we have made full enquiries into the matter, but fail to find any evidence that the damage complained of occurred with us. Nor did the package bear signs of damage at the time of delivery. Therefore, while regretting the loss, we have no alternative but to reject your claim."

It would be useless for the claimant to urge that he noticed at the time of delivety that the case rattled as if the contents were smashed. The company would be sure to reply to the effect that as he omitted to do what might reasonably be expected—that is, draw the porter's attention to the loose condition of the package—they must hold to their previous decision.

—and Weighed

And not only should the package be submitted to a thorough examination as described above, but it should—if it can be conveniently handled, at any rate—be weighed immediately on its arrival, and the weight thus ascertained checked with that shown in the company's book for the particular parcel. By this means it is sometimes possible to tell whether or not a pilferage has taken place *en route*, for, of course, if some of the contents have been stolen, the package will weigh less than stated in the company's books. Any such difference in weight, no matter if it be only 1 lb., should be recorded by the side of the signature.

It is not, of course, always possible to tell in this way when a robbery has occurred. A practised hand will insert something to make up weight, and then there is no difference to record (see p. 187).

Qualify Signature

Under no circumstances, not even if the package is to all outward appearances thoroughly sound, should a clear signature be given to the railway company. There are special reasons—in addition to those already given—for offering this advice. Here is one: If a parcel appears to be intact and an unqualifed signature is given, and it is discovered on unpacking that some of the goods have been stolen during the journey, the carriers

are almost sure to reject the claim on the ground that the package was in apparent good order and condition when delivered, and a clear signature given accordingly.

But if the remark "Quantity and Contents Unexamined", or, if it is a large quantity, the remark "Quantity not Checked" or its equivalent be added to the signature when nothing is observable from a superficial examination, such an argument cannot be used by the company. In point of fact, the signature is given by the consignee simply as an acknowledgment of the receipt of the consignment, and not to testify that the goods are in a sound condition, and that is the only interpretation which could in the circumstances be put upon it in a court of law. As the carriers make much of the fact when a clear receipt is given, it is as well for the consignee to anticipate them, and qualify his signature as suggested.

When Loss Occurs

We said just now, when speaking of pilferages, that sometimes when a portion of the goods is extracted from a parcel during transit, the thief will insert something equal in bulk to counterbalance this. A favourite dodge of the pilferer's is to fill up the vacant space with straw, paper, shavings, or something of that kind, in order to lessen the possibility of the theft being noticed on the arrival of the consignment at the receiving station—at least, that is the reason assigned for the tricks by railway authorities. When anything of this kind is found enclosed with a parcel, the railway company should be communicated with at once, and invited to inspect the contents of the package, and the straw, paper, brick, piece of wood, or whatever it may be, given up to them; for by means of this the railway company's detective will probably be able to ascertain at what part of the journey the pilferage occurred, and very likely trace the guilty party.

It is prudent in a case of this description to advise the railway company in writing (verbal messages are apt to be forgotten), and the following specimen will give an idea of the form the letter should take:—

"The Goods Agent,
"M.X. Railway Co.

"Dear Sir,

"*Re ten cases Quaker Oats delivered yesterday.*

"On opening one of these cases to-day, I find that it has been pilfered during transit, six packets of Quaker Oats stolen, and a quantity of wet hay inserted in the place. Will you kindly send to inspect the case at your earliest convenience, as the claim will include not only the six packages missing, but also the value of several others damaged by moisture?

"Grocer."

Should it be found on opening the parcel that the quantity is correct, but that damage has occurred during transit, this should be advised in the same way, and the company asked to examine the broken articles, or else they may seek to evade their liability on the ground that "no opportunity was given to the carriers to inspect the damage complained of, and so verify the statement contained in the claim", to quote another pet argument.

Journaling Inwards Goods

Besides making a note of the condition in which a parcel is received in the railway company's delivery book, the consignee should make a corresponding record in an Inwards Goods Journal, as per Form 2.

Form 2

SPECIMEN "INWARDS GOODS JOURNAL"

Date.	From.	No. of Packages and Description of Goods.	Weight.	Charges to Pay.	Carrier.	Received by.	Receiver's Remarks as to Condition, &c.

A book of this kind will be found particularly useful, not only for recording all goods received by rail, but for ascertaining the time occupied by a particular consignment in transit, and the charges on the parcel, also for checking invoices; and so on. Nor is the trader likely to forget to send in his claim for damages if he keeps the journal entered up daily.

When and How to Submit a Claim

Nominally, the consignee is allowed three days in which to submit his claim, but if a consignment is damaged during transit, the account for the loss sustained should be sent in to the company at the earliest moment—the same day, if possible —in order that it may be investigated without delay. If the claim be submitted within, say, twenty-four hours from the time the delivery of the full complement is effected, evidence in support of it may be immediately forthcoming and an early settlement secured; but if the matter be allowed to lapse for a day or two, such evidence will not, in all probability, be so readily obtainable, and payment of the account may be postponed indefinitely—and long afterwards, perhaps, refused for want of sufficient proof.

It is not an uncommon occurrence for a consignee to store a consignment for seven or eight days, and then submit a claim for goods "smashed in transit—damage to which was discovered on unpacking", and such a man generally considers that he is very hardly done by when his claim is rejected on the ground that it was "not submitted within the specified time". It cannot be argued that the company is acting in any arbitrary way in rejecting a claim of that nature on those grounds. The claimant knows, or ought to know, the time within which his account should be rendered. Were the carriers to fail in *their* duty in any way, he would, of course, expect them to abide by the contract under which the goods were carried.

The Amount Claimable

Here we must pause to meet an objection which is sure to be encountered by the reader in dealing with these matters. When submitting his claim for merchandise lost or damaged in transit, the trader will not unnaturally charge the price which he would have made had the goods been delivered to him in good order and condition in due course —that is to say, he will add a "profit" or extra charge to the sender's price to reimburse himself for out-of-pocket expenses; but the company will maintain that they are not liable for this additional sum—in no case, they will say, are they liable for "consequential" or "remote" losses, and they will call upon him to amend his claim in accordance with the original price. But the damages recoverable in an action at law for a loss of this character are, as a rule, the market value of the goods at the time and place at which they were, or should, in the proper course of business, have been delivered, so that the consignee need not modify his claim if he has charged no more than is just. (See Chapter V of this Part.)

A Specimen Claim

Fullness of detail should characterize each and every claim. If, for instance, the package upon which the claim is made is one of a number, the fact should be stated; and if the damage was observable at the time of delivery, a remark to this effect should be made; and if there has been any correspondence previous to the claim, this should be mentioned; but we cannot do better than refer again to the consignment of Quaker Oats spoken of earlier in this article, and take that as an example. Form 3, then, is a specimen showing just how the claim should be made out.

Attention to detail is insisted upon for very good reasons. Thus, if the consignee omits to say to which particular parcel the claim refers, from what station the consignment originated, the date of delivery, or a like detail, some considerable delay may occur in getting the claim in hand, with, perhaps, not altogether pleasing results to the claimant. The footnote asking for an acknowledgment of the receipt of the claim, too, may be considered wholly unnecessary; but if this be not added, there is the chance that the claim may be mislaid or overlooked by the station clerk. And what then? If you hear nothing from the company in regard to the claim in the meantime, you may remind them, say three months hence, that it is still unpaid; and if the original cannot be found, they will ask you for a copy of it. Upon receipt of this the matter will be investigated, and if—as probably will be the case after this period—the claim cannot be substantiated, the company may reply that they fail to find any trace of the original claim, and can only conclude that it was not received at their office.

All of which goes to prove that there is good cause to insist on strict attention to each of these details. If the footnote be added, as suggested, the claim is more likely to be acknowledged immediately on receipt (of course, should no acknowledgment be received within, say, two or three days, a repeat letter should be sent), and if each claim is numbered consecutively, as shown in the

Form 3

SPECIMEN "CLAIM"

THE M.X. RAILWAY COMPANY,
Goods Department.

Drs. to ....

Grocer.

	£	s.	d.
To value of 6 packets Quaker Oats stolen in transit from 1 case, part of a consignment of 10 cases *ex* London delivered to me yesterday—			
6 × 2-lb. packets at 5½*d*.	0	2	9
Also to depreciation in value of 5 packets damaged by moisture at 2½*d*.	0	1	0½
	0	3	9¼
Reference No. C 20			
Kindly acknowledge receipt of this claim and note: this confirms my letter of this morning.			

Form 4

SPECIMEN "RAILWAY ACCOUNT"

Messrs. HABERDASHER & Co.,
ST. PAUL'S CHURCHYARD.

Drs. to THE M.X. RAILWAY COMPANY.

FOR THE CONVEYANCE OF MERCHANDISE, MONTH ENDING JULY 31, 1912.

Date.		To or From	Station.	Particulars of Consignment.		Weight.				Rate.	Rail Charge			Collection.		Paid on		Delivery		Total		
						t.	c.	q.	lb.		£	s.	d	s.	d.	s.	d.	s.	d.	£	s.	d
July	2	To	Liverpool ...	10	Bales H. Drapery	1	2	0	0	39/4	2	3	4							2	3	4
"	5	"	" ...	15	C/s. L. "		9	3	0	50/	1	4	5							1	4	5
"	8	"	Leeds	2	" " "		3	2	0	56/	0	9	10							0	9	10
"	12	"	Glasgow ...	10	" " "		15	2	0	100/	3	17	6							3	17	6
"	16	"	Manchester	3	Trusses H. "		8	3	14	40/	0	17	9	2	3					1	0	0
"	19	"	"	3	Parcels Mxd. "		2	3	7	46/8	0	7	4	0	11					0	8	3
"	22	Ex	Perth	1	Basket "		2	1	0	100/	0	12	3			2	0			0	14	3
"	24	"	Barnsley ...	1	C/s. Fancy Goods		1	3	7	52/4	0	5	8			5	8			0	11	4
"	29	To	Liverpool ...	5	Bales H. Drapery		11	3	0	37/6	1	2	1							1	2	1
"	30	Ex	Northampton	1	Box Goods ...		1	2	0	35/10	0	3	3	0	3			0	6	0	4	0
																				11	15	0

specimen, the company will quote the number in their reply. This acknowledgment, also bearing a registered number and reference to a particular claim, safeguards the claimant should the receipt of his claim be subsequently denied.

By the way, a claim of this character—by that we mean one for loss, damage, or the like—should, in the first instance, be sent to the local agent of the company who delivered the parcel, as it is they who are primarily responsible—as agents of the forwarding company—to the consignee in the matter. (See also Chapter V of this Part.)

How to Check Railway Charges

With the exception of those who have had actual experience on the line, and so received their education at first hand, there are very few who understand the nature of railway charges, much less do they know how to check them and test their accuracy; and this arises from the fact that the said charges are of a very complicated character, distinct in themselves and different from any other that the trader has to pay. A clerk may be thoroughly well versed in book-keeping, and know how to check ordinary invoices and statements, but when he comes to deal with the railway account he is done. The following remarks, however, will throw some light on the subject.

If we have an account before us as we read, we can more easily follow what is being said. Form 4, then, will serve our present purpose.

First Check the Goods, then the Weight

The first thing we have to do is to check each entry and make sure that they are all correctly placed to our account. Occasionally it happens that through some cause or other—the indistinct writing of the invoice clerk or an oversight on the part of the accountant—an item is debited to the wrong account; we must not, therefore, pass any entry until we have assured ourselves that it really belongs to us. Our specimen account contains both inwards and outwards goods, and whether or not we received or forwarded, as the case may be, these various consignments can be readily ascertained from our "Inwards Goods Journal" and our home-made consignment notebook.

Again, we must be careful lest we are debited with the charges on an outwards consignment for the carriage of which the consignee is responsible, or charged with the carriage on an inwards parcel for which we are not liable. Whether a particular consignment was consigned "To Pay" or "Paid" can, of course, be told from the duplicate of our consignment note; and the sender's invoice or correspondence will tell us if we are liable for the charges on the inwards parcels.

Examples have already been given of how a pound or two extra in the weight makes a vast difference in the charge, and the reader will have gathered from what has been said that it is necessary to be on guard against overcharges in this direction. If it is thought that a certain parcel did not scale so much as stated, the company should be asked how they arrive at their weight—unless, of course, the goods were weighed at the time of dispatch or receipt, in which case the weight and charges should be reduced accordingly, if an overcharge is discovered.

Next, Check the Rate

A sharp lookout, too, must be kept to see that the proper rate is applied. To assist in this, every trader should provide himself with a rate book of his own, in which should be entered the rates for those commodities in which he deals in operation between those stations from and to which he sends merchandise. The specially designed "Effpee" Railway Rates Books are extremely useful for this purpose. (See Forms 5 and 6.) It is a very good plan to go to the station and personally obtain the rates required, then there is no fear of misquotation. A railway company cannot prevent a trader from doing this, as it is provided by the Regulation of Railways Act, 1873 (Sect. 14), that every railway company and canal company shall keep at each of their stations and wharves a book or books showing every rate for the time being charged for the carriage of traffic, other than passengers and their luggage, from that station or wharf to any place to which they book, including any rates charged under any special contract, and stating the distance from that station or wharf of every station, wharf, siding, or place to which any such rate is charged. Every such book is, during all reasonable hours, open to the inspection of any person without fee.

With his rate book at hand a trader can tell whether the rate charged is correct or not. Very often the ordinary rate is charged when there is a special low rate in operation, either for large quantities or for goods packed in a particular way; occasionally, too, the third-class rate is charged, when in reality the second-class rate applies, or the second-class rate may be applied when, according to the general railway classification, the first-class rate is applicable; and so on. But all those overcharges through the misapplication of the rate can be discovered if a rate book

Form 5

Name of Station.	Mileage.†	Class Rates A s. d.	B s. d.	C s. d.	1 s. d.	2 s. d.	3 s. d.	4 s. d.	5 s. d.	C & D or S to S.	Exceptional Rates. *	*	*	*

† The mileage is often required for the purpose of comparing two different rates and the detection of anomalies, and should therefore be carefully noted herein. The railway companies are bound to record the distances in their rate books.

* State here description of traffic and conditions of conveyance, thus:

Butter and Lard.	
2 ton lots. S to S.	4 ton lots. S to S.

or such other particulars as may be required.

Form 6

Name of Station.	Mileage.†	Class Rates. 1 s. d.	2 s. d.	3 s. d.	4 s. d.	5 s. d.	C & D or S to S	* s. d.	* s. d.	* s. d.	* s. d.	* s. d.	* s. d.	* s. d.	* s. d.	* s. d.	* s. d.

† The mileage is often required for the purpose of comparing two different rates and the detection of anomalies, and should therefore be carefully noted herein. The railway companies are bound to record the distances in their rate books.

* Exceptional rates may be entered in these columns, thus:

* Biscuits (Fancy), in tins, packed in boxes, delivered.	* Flour in Sacks, minimum 4 tons per truck, S to S.	* Boxwood, in lots of 2 tons and upwards, S to S.	or as may be required.

be kept, and the rates charged in the account compared in this manner.

In looking down our specimen account we find that the company have charged us at the rate of 39*s.* 4*d.* per ton for heavy drapery to Liverpool on 2 July, but only 37*s.* 6*d.* per ton for the same class of traffic to the same place on 29 July, and this at once suggests that there is something wrong. Now heavy drapery is, as we see by the General Railway Classification, chargeable at the third-class rate, and the third-class rate between London and Liverpool is 39*s.* 4*d.*; but upon enquiry we find that there are two special rates for our goods in operation between these points, namely, 37*s.* 6*d.* per ton for heavy drapery, and 50*s.* per ton for light drapery; therefore the rate of 39*s.* 4*d.* charged on 2 July is an error. It should really be 37*s.* 6*d.*, and we are entitled to deduct 2*s.* 1*d.*, the difference on this entry. Similarly, there is a special rate of 72*s.* 6*d.* in operation for the conveyance of drapery in Class 4 between London and Glasgow, but the company have charged us at the ordinary fourth-class rate for the consignment which we sent there on 12 July. Here, again, we must deduct the difference—this time the overcharge is 21*s.* 4*d.*

Finally, the Charges

We now come to the various charges on the consignments, and first there is the rail charge. When the consignment weighs over 3 cwt. it is easy enough to calculate the cost of conveyance, this being reckoned on the actual rate at the particular weight per ton—though the task will be considerably simplified if we provide ourselves with a reliable railway ready reckoner; but when we come to the smaller parcels—consignments, that is to say, weighing less than 3 cwt.—the calculation is not so simple. Part 6 of the Railway Rates and Charges Order Confirmation Act, 1891, which deals with small parcel traffic, provides that for small parcels by merchandise train, not exceeding in weight 3 cwt., the company may charge, in addition to the maximum rate for conveyance and the maximum station and service terminals, an additional amount, from 5*d.* to 1*s.* 6*d.* per package, and this additional amount must be added to the total resulting from the ordinary method of calculation before the full charge can be ascertained.

Sometimes we shall come across an entry of this description:—

cwt.	qr.	lb.	
3	0	14	at 85*s.* 10*d.* = 14*s.* 0*d.*

Reckoned by the ordinary process, 3 cwt. 0 qr. 14 lb. at 85*s.* 10*d.* per ton comes to only 13*s.* 5*d.*, but Rule 2 (Part 6) of the afore-mentioned Act provides that:—

"Where, for a parcel exceeding in weight three hundredweight, the maximum tonnage charge comes to less than the company are authorized, according to the above table, to charge for a parcel of three hundredweight in weight, the company may charge for such parcel as if its weight was three hundredweight."

So that the company's charge is in order.

The "collection" and "delivery" charges may be taken together—the first-named is the company's charge for carting the goods from our warehouse to the forwarding station, and the second is their charge for delivering the goods at the other end. Here are the rates per ton for the service of collection in London and delivery in the country, or vice versa:—

Collection and Delivery Charges

Class	1. Per Ton.	2. Per Ton.	3 Per Ton.	4. Per Ton	5 Per Ton.
London	3*s.* 9*d.*	4*s.* 2*d.*	5*s.*	5*s.* 10*d.*	6*s.* 8*d.*
Provinces	1*s.* 4*d.*	1*s.* 8*d.*	2*s.*	2*s.* 6*d.*	3*s.* 4*d.*

In some provincial towns the cartage rates vary a little from these, but generally speaking these rates apply. Obviously, when the tonnage rate is a "C and D" rate, no collection or delivery should be charged if the goods are not carted outside the boundary; therefore, when we are debited with an amount for either of these services, as in the Manchester and Northampton cases, we must make sure that a charge for such service is not included in the rate.

Then there is the "Paid on". The amount shown in this column represents what the company has *paid out* on the consignment, as, for instance, in the shape of cartage to an outside agent, dock charges, storage, or the like. On the parcel from Barnsley on 24 July, the company have charged a "Paid on" of 5*s.* 8*d.*—an amount equal to the rail charge. This looks as if the goods in question were returned by the consignee with the down charges entered up as a "Paid on" —a common practice. If we fail to identify a particular item of this character, or have some doubt as to its accuracy, we should ask for details or a voucher from the payee.

The sum shown in the last column is, of course, the total of the separate amounts. This should be compared to see if any error has occurred in cross-adding, and the casting of the total column should be tested in a like manner. After each item has been challenged in this way, we may safely pass the account for payment.

Concerning Rebates

Whilst on the subject of accounts it will be well to add a note on rebates.

If the goods are charged at a rate which includes a charge for either collection or delivery—a "C" (collected), "D" (delivered), or "C and D" (collected and delivered) rate, that is—and the trader at either end elects to do his own carting to or from the station, he is entitled to claim a refund, or "rebate", from the rate in respect thereof. Or, to put it in another way, a railway company cannot legally include in their conveyance rate a charge for a service which they do not perform, or if they do they are bound to make an allowance to the trader who performs the work and submits his claim for such cartage services. This has been well established by the Courts in several test cases.

It is the party who actually performs the carrying who should, in the ordinary course, claim the cartage rebate.

Thus the sender is the proper party to claim the refund at his end if he puts the goods on rail, and the consignee should claim at the receiving station if he carts the goods from that station to his warehouse on arrival. There are exceptions to this rule, of course, as, for instance, when by prearrangement the goods are put "free on rail" and the consignee claims for cartage at both ends; but, generally speaking, the rule is for each party—the consignor and consignee, that is, to claim at their respective ends the rebate for the work which they do.

The common practice is to submit the claim for rebate to the railway company once a month and to deduct the amount due when settling the carriage account, and as a rule it is at the ordinary collection and delivery rates that the rebate may be claimed.

A RAILWAY TRADER'S RIGHTS AND HOW TO SECURE THEM

So far little or nothing has been said here of the machinery which exists for the adjustment of those grievances which crop up now and again in dealings with the railway companies; let us therefore proceed to consider, first, what are the rights of a trader as an employer of a railway company for the conveyance of his goods, and then how he can secure these legitimate dues if they are illegally withheld from him.

Undue Preference Prohibited

To begin with, section 2 of the Railway and Canal Traffic Act, 1854, compels companies to make suitable provision for the conveyance of traffic in the proper order and course, and forbids favouritism. (See Chapter V of this Part.)

The Railway and Canal Traffic Act, 1888, provides that the "reasonable facilities" shall include "the due and reasonable receiving and forwarding and delivering . . . of through traffic . . . *at through rates*".

Notwithstanding this provision, however, preferential treatment in the matter of greater facilities or lower rates is sometimes given to one trader or class of traders, to the detriment or disadvantage of another trader or body of traders.

When such an act is discovered representations should be made to the Company guilty of it, and, should they refuse to desist, a formal application of complaint should be lodged with the Board of Trade under section 31 of the Railway and Canal Traffic Act, 1888.

The Board of Trade, if they think that there is reasonable ground for complaint, may thereupon call upon the railway company for an explanation, and endeavour to settle amicably the differences between the complainant and the company.

Whenever it is shown that any railway company charge one trader or class of traders in any district lower tolls, rates, or charges for the same or similar merchandise, or lower tolls, rates, or charges for the same or similar services, than they charge to other traders or class of traders, or to the traders in another district, or make any difference in treatment in respect of any such trader or traders, the burden of proving that such lower charge or difference in treatment does not amount to an undue preference lies on the railway company.

Any recognized body of traders may take up a case of this kind for adjustment without having to show that they are aggrieved by the matter complained of; associations are empowered to act on behalf of any of their members and submit the case to the Board of Trade—and, if necessary, later on to the Railway Commissioners—for arbitration. (See Chapter V of this Part.)

Companies Bound to Dissect Rates

When rates are being examined occasionally it is found that one exceeds another, notwithstanding the fact that the goods to which both rates are applied are of the same class, and the service apparently similar or identical. In such a case a

disintegration should be asked for, and it should be made perfectly clear to the railway company that it is an analysis of the *actual rate in operation* which is required, not the maximum rate chargeable, and the applicant should insist on having this, as the other is perfectly useless for practical purposes. The company cannot refuse to supply these particulars.

"The company shall, within one week after application in writing made to the secretary of any railway company by any person interested in the carriage of any merchandise which has been or is intended to be carried over the railway of such company, render an account to the person so applying in which the charge made or claimed by the company for the carriage of such merchandise shall be divided, and the charge for conveyance over the railway shall be distinguished from the terminal charges (if any), and from the dock charges (if any), and if any terminal charge or dock charge is included in such account the nature and detail of the terminal expenses or dock charges in respect of which it is made shall be specified" (the Railway and Canal Traffic Act, 1888, section 33 (3)).

In the case of *Cairns v. North-Eastern Railway Company* (1883), which was an application to enforce the dissection of certain rates, the Court declared that: "The mistake that the railway company make in this matter is that they seem to imagine that they owe no duty to the customer apart from his statutory right to have this information placed on the rate book under an order to be obtained from us. A customer is entitled to have this information quite apart from the statute, which only provides a remedy in case of need. Whenever proper information has been refused the company must be treated as not having performed their duty to the customer, and the question will arise whether they should not be obliged to put the whole of these details in the rate book for everybody to see. In no case does the customer's right to information depend on the question whether it is such that the public should also have it;" and in the case of *Birchgrove Steel Company v. Midland Railway Company* (1887) the Court held that: "A trader is entitled to know from a railway company, and, if necessary, to have the information put down in the rate book, how much of the rate is for movement along the line, and how much is for other expenses, together with the nature and details of such other expenses".

In the event of the explanation given by the company being unsatisfactory, an appeal should be made to the Railway and Canal Commissioners. (See Chapter V of this Part.)

Companies Bound to grant Through Rates

As previously stated, the companies are under statutory obligation to make provision for the conveyance of through traffic at through rates, though they do not always do this, especially with regard to consignments travelling long distances. When, therefore, a railway company desire to charge a trader an exorbitant sum—made up of (say) two local bookings, as such amounts usually are—he should decline to pay until the figure has been corrected. True, a consignee is not entitled to withhold payment of his carriage account pending the settlement of some dispute, nor, on the other hand, has a railway company any right to charge an excessive amount.

Excessive Increases

Sometimes it will be found, when comparing railway rates, that a railway company have made a great advance in a particular rate in spite of their undertaking that no rate should be advanced more than 5 per cent over and above what it was in 1892. When such an increase is discovered a protest should be immediately made to the company, and if they refuse to adjust the rate and refund the amounts improperly charged—as they should be required to do—the conciliation of the Board of Trade should be sought under the statute already mentioned. In such an event it is for the railway company to defend and explain the increase—if they can. (See Chapter V of this Part.)

Letters seeking the aid of the Board of Trade in such matters should be addressed to the Assistant Secretary, Board of Trade, Railway Department, 7 Whitehall Gardens, London, S.W.

The railway company may refuse to adjust the rate, notwithstanding the Board of Trade's intervention; the railway companies know that the Board has no power to enforce a proposal of any kind, and they therefore do not yield so readily as they otherwise might do. In that case it may be necessary to refer the question to the Railway Commissioners for settlement.

With regard to the cost of an appeal to the Railway Commissioners, the Registrar of that body, in his evidence before the Departmental Committee (on Railway Rates) of 1906, said:—

"In my opinion, the cost to the parties of coming before the Railway Commissioners is not excessive. The Court fees are the same, or nearly the same, as in the High Court—they are certainly no higher; and in an important arbitration case I claim that it is the cheapest tribunal in the land, because on payment of

the Court fees, the parties not only get the services of a judge of the High Court, but the services of Sir Frederick Peel, with his great knowledge and experience, and also the services of a third Commissioner. In a private arbitration, an outside arbitration, the parties cannot secure the services of a judge of the High Court at all, and they would have to pay a fee of something like fifty guineas a day to any arbitrator of position, because he is not receiving a salary from the Government. The fee for receiving and filing every application is £1. That fee is also payable by the defendant on filing the answer. The Court fee for hearing in an ordinary case, that is, a case which would be brought by an agriculturist or trader relating to undue preference or to want of facilities, is £2; and the cost of the order under seal issued by the Court is £1. Then, in interlocutory proceedings, there is 5s. on every summons and 2s. 6d. for every order. The calling of witnesses makes no difference in the Court fees. The chief expense in the Court of the Railway and Canal Commission, as in every other Court, is the employment of Counsel."

From the foregoing it will be seen that the only expense which need be incurred in these proceedings, previous to the case being carried into Court, is the cost of postage. No other outlay is necessary.

How to get Goods Classified

In conclusion, the trader must be urged to see to it that his goods are properly classified in the Railway Classification—the book in accordance with which all railway consignments are charged. The Railway and Canal Traffic Act of 1888 (section 24 (11)), says:—

"... any railway company may, and any person, upon giving not less than twenty-one days' notice to the railway company may, apply in the prescribed manner to the Board of Trade to amend any classification and schedule by adding thereto any articles, matters, or things, and the Board of Trade may hear and determine such application, and classify and deal with the articles, matters, or things referred to therein in such manner as the Board of Trade shall think right."

Many traders have taken advantage of this to secure the proper entry of their goods in the classification for carriage charges purposes; but many more—the majority of traders, in fact—pay no attention to this matter, and that is one of the chief causes of high railway rates.

Suppose, then, that you are the inventors and manufacturers of a new drink called "Coolem", and that you desire to have this article properly classified so that no difficulty shall arise in connection with the charging of it; you must draft your application to the Board of Trade in this way:—

The Assistant Secretary,
Railway Dept., Board of Trade,
7 Whitehall Gardens,
London, S.W.

DEAR SIR,

Railway and Canal Traffic Act, 1888, section 24, subsection 11.

We hereby beg to make application for the inclusion of the undermentioned article in the Railway Classification in the style and class described:

"Coolem, in bottles, packed in cases . . . Class 1."

"Coolem" is a new manufacture of ours, and is in all essential respects like aerated and mineral waters, which goods, as you know, are provided for in Class I. The packing of the two articles is also identical.

Yours faithfully,

After which the following rules and regulations of the Board of Trade must be complied with:—

1 Notice of the application must be advertised in the London, Edinburgh, and Dublin Gazettes, in one of the principal morning newspapers published in London, Edinburgh, and Dublin respectively, and in one or more trade papers; and must also be given in writing to the Secretary of the Railway Companies Association, 53 Parliament Street, London, S.W., on behalf of the Railway Companies of the United Kingdom.

2. The notice must state that objections to, or representations regarding, the application may be addressed to the Assistant Secretary, Railway Dep., Board of Trade, 7 Whitehall Gardens, London, within twenty-one days of the date of the advertisement, and that a copy of such objections or representations should at the same time be sent to the advertiser or some person acting on his behalf.

3. Copies of the newspapers, &c., containing the notice must be forwarded to the Railway Dept., Board of Trade, in due course.

It is only fair to say here that sometimes a matter of this kind can be arranged by first applying to the railway company with which one does business and asking them to agree to and secure the required entry in the classification, and when this is done, of course there is less trouble and no expense whatever; but if, as frequently happens, the company refuse to agree to the proposed classification of the article, then there is no alternative but to apply to the Board of Trade in the manner indicated above, and to back up the application by incontestable proof of its reasonableness.

Similarly, if a railway company propose to transfer an article from one class to another—a higher class, say from Class 1 to Class 2—the matter must be dealt with in the same way, i.e. by directing a letter to the Board of Trade; only

in such a case the communication must naturally take the form of a protest instead of an application. This has been done successfully in many instances.

From what has been said it will be seen that this is a matter of great importance to all railway traders; the loss to whom, through their goods being either improperly or insufficiently described —and in numerous instances totally unprovided for in the Railway Classification—is incalculable. It is frequently alleged against the railway companies that their rates for the conveyance of particular articles are high and out of proportion, having regard to the value and nature of the goods carried, and to the risks undertaken and the services performed by the carriers; but often enough—as has been shown—the fault lies with the traders themselves in leaving the fixing of rates entirely to the railway companies, instead of themselves having a hand—as it is obvious from what has been said above they can have—in this business.

It is far easier to get an article properly classified in the Railway Classification in the first place than to get it transferred from a high class to a low class after it has been placed there at the discretion, or at the request, of the railway companies.

CHAPTER VII

DOCKS, WHARVES, AND WAREHOUSES

Docks—The Docks of London—Delivery of Goods—Loading, Storage, &c.—The Docks of Liverpool—Warehousing and Storage—The Law relating to Warehousing—Forms

DOCKS

Docks are artificial enclosures provided with locks and gates which are opened just before high tide to allow vessels to enter or leave. When intended to receive vessels for discharging and loading, they are called *wet docks*. The gates are very strong, and are constructed to keep in the water at practically the level of high tide. Owing to the number and size of the vessels, docks are absolutely necessary for the conduct of the commerce of ports such as London and Liverpool.

Dry or graving docks are built in order that vessels may enter to be examined and repaired. The ships enter at high tide, and after being safely berthed, the gates are shut at low tide and the water remaining pumped out. There is also another kind of dry docks, called *floating docks*, which float on the surface of the water, and which may be sunk to allow a vessel to be floated into them, and then raised again by pumping the water out of the tanks round the sides. The graving docks are built like the hull of a ship. After the water is pumped out, the ship is supported by blocks and props. The bottom is generally slanting, thus enabling the ship to glide into the river.

As it is often thought that wet docks are simply built for discharging and loading vessels, the following information will give the reader some idea of their uses in the housing and working of the commodities discharged from the ships, and the methods by which the merchants pass their Customs entries and release their goods from the docks.

THE DOCKS OF LONDON

Towards the end of the eighteenth century the trade of London had developed to such an extent that it was found impossible to discharge ships quickly, owing to congestion on the River Thames. This crowded state of affairs not only retarded the discharge of the vessels, but it made it very difficult for the river police properly to guard the produce when put into the barges. As the river always was on the ebb and flow, the mooring and unmooring of the barges to the ships was no easy matter.

There being only one small dock that could be used, the Howland Wet Dock, in 1799 the merchants, who could no longer put up with the delay and robbery that occurred in the river, petitioned Parliament and obtained powers to build other docks. Those trading principally between the West Indies and London built the West India Docks, which were opened in 1802 by the Prime Minister, William Pitt. The merchants trading in wine and tobacco built the London Docks, which were opened in 1805. The East India Docks, which were built by merchants trading to the East Indies and China, were opened in 1806.

In order that they might be recouped for the capital expended, these three companies were

granted certain monopolies for twenty-one years, the chief of which was that all vessels engaged in the trades for which the docks were built were obliged to discharge therein. As the time for expiry of these monopolies drew near, Parliament was again approached with a view to building the St. Katharine Dock, the walls of which face the Tower of London; but the other companies, fearing competition, obstructed the Bill, and it was not until 1825 that power was obtained. The docks were at once begun, and were opened in 1828. The Royal Victoria Dock was opened in the year 1855; and in 1880, in order to cope with ships of large tonnage, the Royal Albert Dock was constructed, and opened by the Duke of Connaught. This dock, which was built by the London and St. Katharine's Dock Company, took away many of the larger vessels from the West India Docks. In the hope of getting back these vessels, and also securing vessels of even larger tonnage which were being built, the East and West India Dock Companies (these two dock companies had been amalgamated in 1838) built the Tilbury Dock, which was opened in 1886. For many years this dock was a "white elephant".

The building of the above docks led to keen competition between the companies—so keen, in fact, that work was often done at a loss, and it was found necessary in 1888 to place the London, St. Katharine's, East India, West India, Royal Victoria, Royal Albert, and Tilbury Docks under one management, the London and India Docks Joint Committee, and the profits were divided in proportions as laid down by an Act of Parliament. On 1 January, 1901, the whole of these docks were amalgamated in the London and India Docks Company, the head office of which was 109 Leadenhall Street, London, E.C. This gigantic undertaking had a permanent staff of nearly 5000, including about 350 belonging to the engineers' department. In 1909 these docks, together with the Millwall and Surrey Commercial Docks, were taken over by the Port of London Authority.

Port of London Authority

Several attempts were made to form an Authority with power to control the river and the docks of London, but it was not until 1908 that Parliament gave permission for an Authority to be set up. In that year an Act was passed to provide for the improvement and better administration of the Port of London, and for purposes incidental thereto. This Authority, which is comprised of members appointed by the Admiralty, Board of Trade, London County Council, the City Corporation, Trinity House, shipowners, wharfingers, lightermen, labourers, &c., took over the control of the river and the docks on 31 March, 1909. The shareholders of the dock companies were given the following Port Stock in exchange for their shares:—

THE LONDON AND INDIA DOCKS COMPANY

£7,978,876 of A Port Stock.
£9,893,835 of B Port Stock.

THE SURREY COMMERCIAL DOCK COMPANY

£522,000 of A Port Stock.
£2,388,485 of B Port Stock.

MILLWALL DOCK COMPANY

£651,276 of A Port Stock.
£928,504 of B Port Stock.

Making a total of £22,362,976.

These figures will perhaps give the reader some idea of the magnitude of the undertaking.

The docks have a water area of 640 ac., and 143,000 ft. of quay accommodation. Powers have been granted to increase this accommodation, and the building of a new dock is under consideration near the Royal Albert Dock.

The staff of the Authority is an enormous one, and on 31 March, 1911, numbered 13,439—permanent staff 8566, average number of men taken on daily 4873. There has been a large increase to date, which will give an improved service.

The cost of the staff for the same period was £468,474, 2*s.* 7*d.* Rates and taxes amounted to £104,580, 5*s.* 4*d.*; insurances, £9244, 17*s.* 1*d.*; telegraph and telephone communication, £959, 5*s.* 10*d.*

The docks are guarded (at great expense) by a large body of police (over 500) against pillage and fire.

The shipping, &c., entering the Port of London, over which the Port Authority has control as regards dues, is as follows. The figures show that in volume and value the trade of the Port of London during the second year of the Authority's administration was the highest on record. The total net tonnage of the vessels entering and leaving with cargoes, and in ballast, from and to foreign countries and British possessions and coastwise, during the year ending 31 December, 1911, was 39,179,153 tons; this being a decrease as compared with 1910 of 293,848 tons.

The net registered tonnage of shipping which entered and left the Port of London and paid river tonnage dues, during the twelve months ended 31 March, 1911 and 1912 respectively, was as follows, the increase of 1912 over 1911 being 9885 tons:—

FOREIGN

	Net Registered Tonnage 1912.		1911.
Inwards	12,303,608	...	12,098,746
Outwards	7,798,026	...	7,557,447
	20,101,634		19,656,193

COASTWISE

	Net Registered Tonnage. 1912.		1911.
Inwards	6,527,080	...	6,830,044
Outwards	2,866,807	...	2,909,399
	9,393,887		9,739,443

The shipping that used the wet docks during the twelve months ended 31 March, 1911, shows an increase of 717,684 tons over the preceding year.

	Net Registered Tonnage. 1911.		1910.
FOREIGN—			
Inwards	8,824,965	...	8,526,196
Outwards	6,669,321	...	6,319,541
COASTWISE—			
Inwards	1,590,024	...	1,592,514
Outwards	1,069,471	...	997,846
	18,153,781		17,436,097

The shipping, including the dry docks of the Authority, during the twelve months ended 31 March, 1912, shows a decrease compared with the previous year of 77,222 tons.

	1912.		1911
Dry docks	2,158,073	...	2,235,295

The values of the imports and exports (excluding coastwise goods) of the United Kingdom and six leading ports for the year ended 31 December, 1911, were:—

United Kingdom	£1,237,035,959
London	368,202,536
Liverpool	336,439,017
Hull	71,453,077
Manchester	54,143,473
Southampton	47,216,924
Glasgow	47,135,993

During the twelve months ended 31 March, 1912, the Authority landed 2,192,004 tons of import goods for warehousing, or for direct delivery to land conveyance, as compared with 2,173,223 tons landed during the previous twelve months —an increase of 18,781 tons.

The export traffic handled on the dock quays in the same period was 774,998 tons, as compared with 723,656 tons—an increase of 51,332 tons.

Port Dues

Prior to 1 November, 1910, no Port dues were collected on merchandise entering or leaving London; but on and from that date the Port of London Authority levied dues under the Port of London Act, 1908; power being granted by Parliament to the Authority to raise money to defray the cost of the necessary improvements in the accommodation and facilities of the docks and river.

By Section 13, which empowers the levying of Port dues on goods, it is provided that goods shall not be treated as having been imported or exported coastwise unless imported from, or exported to, a place seaward of a line drawn from Reculvers Towers to Colne Point, or anything that may be substituted therefor, being a line determined by the Treasury in pursuance of the power conferred upon them by Section 140 of the Customs Consolidation Act, 1876.

There are several commodities on which half rates are charged, and others on which no rate is levied. A list of these can be obtained from the Port Dues Book issued to merchants by the Authority. Transhipment goods, being exempt, are declared at or before the time of the report of the ship at the Custom House, and their transhipment proved within seventy-two hours thereafter. Every declaration must be signed by the owner or his agent. The Port of London Authority must also be informed directly the goods have been shipped. If the owner or agent gives false information, with a view to evading dues, he is liable to a penalty not exceeding £10. If the owner or master of a ship deliver the goods without the permit showing the dues have been paid, he is liable for the said dues.

St. Katharine Docks

These docks, which are opposite the Tower of London, are more like model docks, and can only be used by vessels of small tonnage. The ships which use them are those trading to Bremen, Hamburg, and Scotland. The chief articles housed are tea, indiarubber, and gutta percha. At the time of writing there are over 800 tons of indiarubber and gutta percha in the vaults, valued at about £300,000. Being such a valuable product, extra care is taken in taring and weighing. As these products lose weight if exposed to the light, or drying winds, they are stored in stone vaults. These vaults provide cool storage with a minimum variation in the temperature. Before weighing, the goods are placed on a show floor with a good north light, in order that they may be conveniently and perfectly inspected. The produce

is often cut through to see if the natives have placed any mud or other foreign matter inside.

Practically a whole warehouse is used for the storage of tea, of which 658,911 packages, weighing 30,028 tons, were housed and delivered in the year 1911. Tea arrives at the docks in chests weighing 1 cwt. 0 qr. 14 lb.; half-chests, 2 qr. 14 lb.; and boxes, 1 qr. 0 lb. Tea, being dutiable, is weighed by the officers of His Majesty's Customs, as well as by the dock clerks. The packages are arranged into what are called "shops", each shop containing three or more packages. A man is placed in each shop who cuts off the canes which are put on abroad, mends the packages, and nails wooden hoops round them in order that they may be safely handled without losing any of their contents during any subsequent treatment. The lids are then removed, and the packages laid down in rows for the inspection of the selling brokers. They are then rearranged into shops, and, the lids being nailed on, are reweighed and put away until the merchant requires them delivered. Some parcels are bulked and blended, the tea being turned over by wooden spades. When it is remembered that each package of tea bears a separate number, and is stored and delivered by that number, it will be seen at once that great care and a thorough system are requisite to prevent confusion and mislaying of packages.

Nearly the whole of one warehouse and part of two others belong to the wool department of the London Docks, to which they are connected by bridges.

The London Docks

These docks, which adjoin those of St. Katharine, have an area of 100 ac., 40 of which are water. By means of pumps the water is kept at a level of about 3 ft. 6 in. above Trinity high-water mark. From east to west they are about one mile in length. There is a floor area of about 3,000,000 sq. ft., with storing accommodation for about 170,000 tons of goods. In the warehouses are stored produce from every part of the world. Special storage is provided for wool, wine, brandy, sugar, canned goods, ivory, bark, spices, metals, drugs, pepper, isinglass, coffee, rice, &c.

With one or two exceptions the ships in these docks are discharged by the officials of the docks.

The vaults of the London Docks are unequalled in size and architecture. So splendidly constructed are they, that although they were built in 1802, and have warehouses, containing thousands of tons, over them, it has not been necessary to repair them in any way. The vaults used for tallow and oil cover an area of several acres.

The brandy vault is very large, and covers an area of 4 ac., and the brandy matures splendidly in this vault.

Wine is the chief article stored in the vaults, there being room for the storage of 105,000 pipes of about 115 gal. each.

There are 28¼ ml. of gangways, with a double set of rails on which the casks are stored.

For the purpose of reducing the risk of fire and obtaining a low premium, the wine vaults are divided into four groups. The vaults known as 1 to 4 are practically ¼ ml. in length. The show vault is named the Crescent Vault, and is under the wool warehouse, which is built in the shape of a crescent. This vault has storage accommodation for 9000 casks. Many illustrious visitors have viewed this vault.

Fungus hangs from the roof of the wine vaults in large clusters. Some of the growth is over fifty years of age. The fungus is mostly black, but here and there it is snow-white, and has the appearance of swansdown. This fungus is only found in the wine vaults. It is said that its growth is caused by condensation, and the breathing of the wine.

Port and sherry are the chief wines stored in the vaults.

Foreigners who have travelled practically all over the world admit, when they go over the vault, that they have never seen anything to equal it, as far as vaults go. The Crescent Vault is the vault spoken of in *Valentine Vox*. One thing that interests visitors very much is a downpipe outside No. 1 Warehouse bearing the date July, 1804. It drains the water from the roof and has never been repaired.

To protect the goods from the attacks of rats and mice over eighty cats are kept, at a cost of about £70 per annum.

Owing to its close proximity to the City, and its splendid warehousing accommodation, this dock is the chief warehousing dock of the Port of London.

Very many people are of opinion that the goods are simply stored in the docks; and when they visit them, are very much surprised and interested in the different operations performed by the staff. So very interesting and instructive are many of the operations, that we give an account of the way in which some of the chief commodities are dealt with.

We take by way of example the custom at the Docks of London and Liverpool. Reference may also be made to Part II, Chapters V, VI, and VII for general and special information as to the United Kingdom, the British Empire, and foreign countries.

Cinnamon

This spice comes chiefly from Ceylon, and is the bark of a tree somewhat similar to our willow.

The natives strip the bark from the branches and place it in the sun to dry. The pieces, which are in the shape of a quill, vary from 6 to 18 in. in length, and are packed into bundles. In order that the bundles may be of uniform size, the pieces are placed one inside the other. There are four grades, the bark taken from the youngest branches being of the best quality.

It is the duty of the warehouse keeper, who acts as the medium between the buyer and the seller, to examine the quality of the quill, as the prices vary considerably per bundle of 100 lb.—

1 grade, £10; 2 grade, £9; 3 grade, £8; 4 grade, £6.

After examination they are again placed into bundles and guaranteed. This examination is absolutely necessary, as the natives are sometimes very careless, and often put quills of the coarser quality in with those of the finer.

An interesting feature in the replacing into bundles is that the leather bands, which are quite smooth, in order not to bruise the quills, are in some cases over forty years old, and the machine which tightens the bundles has been in use for nearly a hundred years.

Wild cinnamon, commonly known as cassia, which is used as a substitute in mixed spice, is only worth 4*s.* a cwt.

Ivory

Over 90 per cent of this article comes from Africa. It is shipped from nearly every port on that coast. India, Ceylon, and other Asiatic countries have only little more than enough to supply the local demands.

Now and then a small quantity of fossil ivory arrives from Siberia. This is very brittle when found in the earth, but when found in the ice, although it is without doubt many thousands of years old, is in a good state of preservation Mr. Hagenbeck, who has made ramifications all over the world in search of animals, and who supplies the different zoos with many birds and animals, and is a great dealer in elephants, paid a visit to this floor in 1910, and was shown a piece of fossil ivory almost in perfect condition, which was found in the ice in Siberia. He said that an elephant was found embedded in the Siberian ice, and that though it must have been there for ages, when it was found, the flesh was perfectly sweet and fit to eat.

Elephant tusks are often very large, and weigh nearly 200 lb. The African ivory is superior in whiteness to any other.

Billiard-ball ivory is more than double the value of the other part of the tusk, and a few years ago was worth £138 per cwt. In the year ended 31 December, 1911, over 6000 cwt. were housed, representing about 25,000 elephants.

It is the duty of the warehousemen to examine every tusk, in order that pieces of lead, &c., which are sometimes stuck in the cavity of the tusks, shall not be weighed as ivory. In 1908 a remarkable tusk was offered for sale. It formed practically two circles, and was valued, as a curiosity, at £1000. As much as 120 tons have been offered in one sale; valued at about a quarter of a million sterling. There are four sales annually.

Nutmegs

This spice comes from Singapore, Penang, and the West Indies. That from Penang is the finest. Owing to the prevalence of blight, nutmegs have to be specially treated. The nutmeg tree, when in bloom, is visited by little black flies that deposit an egg in the flower, and when the flower closes, it envelops the egg. The nutmeg is the kernel of the fruit that springs from the flower, and after a time the egg turns into a maggot which eats away the centre of the nutmeg, and in many cases leaves only a thin outer crust. This maggot at last eats its way out and turns into a black fly. The nutmegs come to England in cases weighing from 1 cwt. to 3 cwt. At one time they used to be sorted to sizes on arrival, but now that is done by the natives, who sort them into 65, 80, and 110 to the pound. As the maggot often comes out during the voyage, the nutmeg has to be examined, those with holes being called defectives. The perfect ones are repacked, and the warehouse keeper issues an account guaranteeing them to be sound.

The nutmeg has three coverings—a hard shell (of no value); mace, which is used in mixed spice, and is worth about 2*s.* 6*d.* per pound; and outside the mace, a covering of fruit which is used in some districts by the natives, and also by the Japanese, as a sweetmeat. The nutmeg is largely used in Japan as a tonic. When one thinks of the many millions of nutmegs that are imported in a year, one can form some idea of the tedious task of the examiners.

Wine

As in the case of rum, the casks are sounded by the cooper, often in the hold of the ship; and if there is any suspicion of leakage or pilferage, the mate of the vessel is at once informed, and a survey held in order that the shipper may be protected, and a claim made either on the underwriters or the shipbroker. If the survey prove the cask to be defective, and not strong enough

to stand the journey when shipped, the shipper has to bear the loss. When landed, the cask is made up on the quay—it is not allowed to be placed in the vaults until the Customs officer has examined it. A landing sample is drawn, free of duty, and sent to the merchant. A sample is also drawn for determining the strength of the spirit in the wine. The cask is then gauged by the Crown officer, and, when the casks are to be stored, they are lowered into the vault, where they remain in bond to meet the demands of the trade. When required for delivery, they are placed in the Customs re-gauge ground. The Customs allow one gallon a year for evaporation and absorption, and if the cask, when re-gauged on delivery from the bond, shows a higher percentage of loss, the Crown claims the duty on the quantity lost.

When the wine is required for bottling purposes, it is "fined", that is, made bright. One method of making it bright is to put the white of new-laid eggs in the wine; the albumen in the eggs forming a kind of net which carries to the bottom of the cask the particles in suspension. It is usual to allow the cask to remain on a stand for about three weeks before drawing the wine off into bottles. If the merchant takes delivery of the lees, or deposit, he pays duty on it; if not, then a Customs officer stands by and sees that it is poured down a drain; no duty is then charged.

The Customs sample is taken to their laboratory and tested for strength by the following method:—

The wine is put into a glass, a Centigrade thermometer is inserted, and the temperature taken. Sykes's hydrometer is then placed in the glass; this instrument enables the tester to arrive at the amount of spirit in the wine. If the spirit does not exceed 30 degrees of alcohol, a duty of 1*s.* 3*d.* per gallon is charged. If it exceeds 30 degrees and not 42 degrees, a duty of 3*s.* per gallon is charged. Good wine nearly always exceeds 30 degrees.

There is a duty of 15*s.* 1*d.* per proof gallon on spirits.

In order that they may mature, brandy and whisky are kept in the vaults a very long time. It is no uncommon thing for the casks to be stored for twenty years. There is some brandy which has been in the vault nearly forty years.

Wool

The woollen industry is one of the staple industries of the country, and practically 50 per cent of the bales that are dealt with in London are housed in the wool warehouses of the London and St. Katharine's Docks.

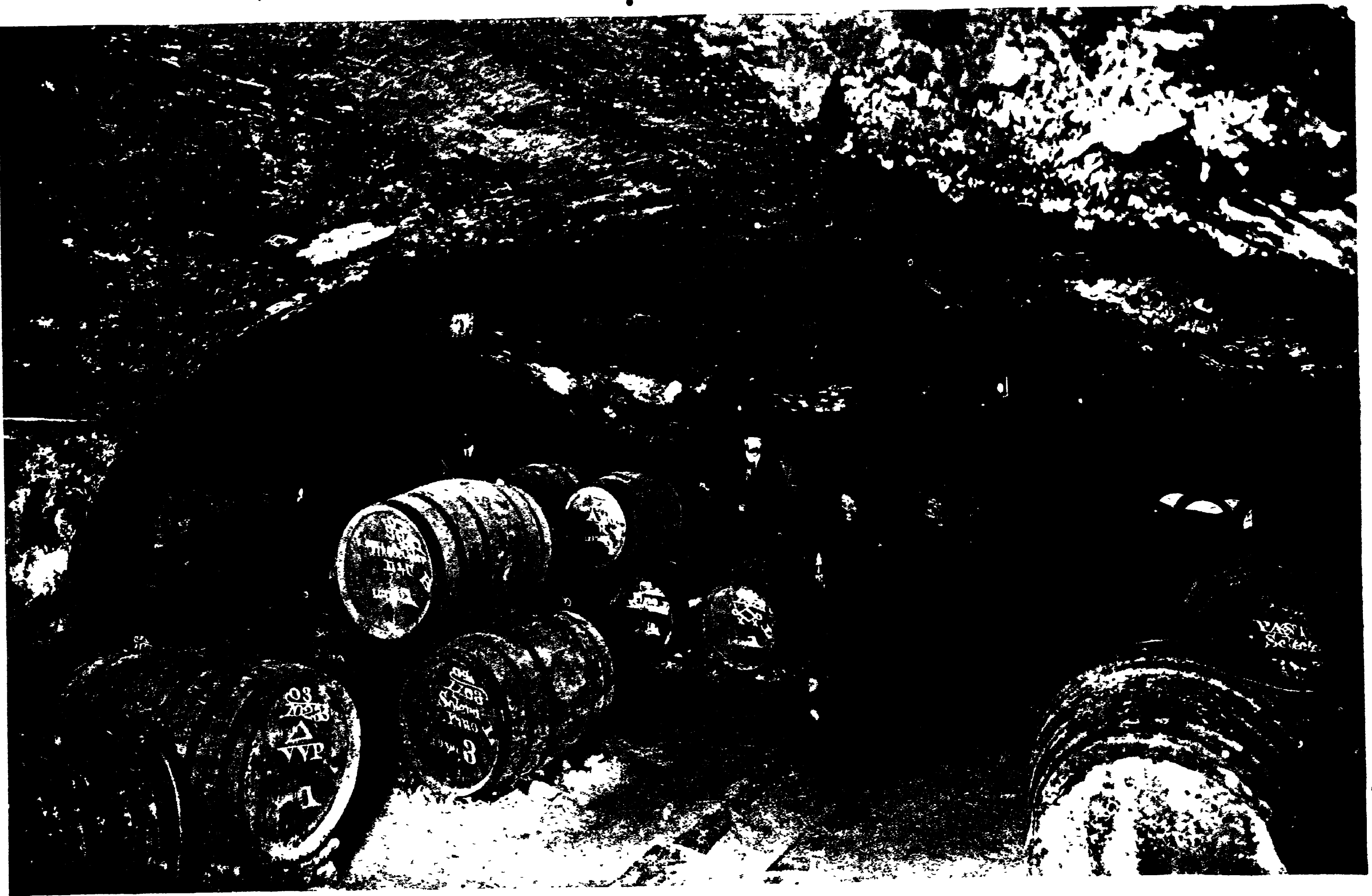
In order to save freight, the bales are press-packed, and encircled in iron bands. As the bales are landed from the ship, men stand by with large choppers and strike off the bands. The bales are then weighed, and as they leave the scale a man cuts open one corner of each bale and takes out about 1 lb. of wool as a sample. These samples are sent to the selling broker, in order that he may be able to judge the worth of the wool. They are then housed on the lower floors of the warehouse.

There are six sales every year, and a card with the lot and number is shown on every bale. The bales are lifted to the top floor—which is roofed by glass—and piled into lots, three high; they are again cut open, so that the buyers may inspect and judge their value. If there is any doubt as to the bale containing the same quality of wool throughout, practically the whole of it is pulled out on to the floor. Men are told off to keep the gangways clear, and each one is provided with a broom-handle, at the end of which is fastened a piece of leather. The wool that has been plucked out of the bales is then put back, and the bales re-weighed. The wool is inspected by the buyers from 8 a.m. to 3 p.m. After inspection, they attend the Horseshoe room in the Wool Exchange, Coleman Street, E.C., where the bales are sold by auction. It is one of the sights of London to see the buyers from Russia, France, America, and Germany shouting their prices, and waving their catalogues in the hope of catching the auctioneer's eye. The quantity of wool imported from Australia, New Zealand, and the Cape into London, and offered for sale by public auction during 1911, was 967,829 bales. The average value of each bale is £15, giving a total of nearly £15,000,000. The wool came from the following places:—

	Bales.
Sydney	154,362
Queensland	117,582
Port Phillip	108,210
Adelaide	43,368
Tasmania	10,779
Western Australia	72,567
New Zealand	417,118
Cape of Good Hope	43,843
Total ...	967,829

In addition to these high-class wools, nearly 86,000 bales of fine low wool were sold, 61,500 of which came from Punta Arenas. Over 90 per cent of these bales were handled by the staff of the Wool Department.

The Wool Department covers a very large area,



[illegible] WINE VAULT, LONDON DOCKS

and it takes one nearly a quarter of an hour to walk from one end to the other. It has an area of floor space of 1,448,436 superficial feet. There are forty-two divisions, roofed by glass, for showing purposes, and 40,000 bales can be shown at one time; and over 24,000 tons can be stored at one time, or roughly, 160,000 bales. There are over 4½ ml. of gangways. On a sale day as many as 1400 persons have been employed at one time. The permanent staff alone numbers over 350.

The Millwall Dock

This dock has 1¾ ml. of quays, and a water area of 36 ac. The chief articles of produce dealt with are grain and wood. There is storage accommodation for about 250,000 qr. of grain. The stores have been so full on occasions that business has had to be refused. During 1911, 711,900 qr. passed through the stores. It is very interesting to watch the discharging of the grain ships in bulk. No sooner is the ship berthed, than alongside comes the grain elevator with its long neck of canvas, which, being put into the hold, sucks away at the grain, so to speak, and at the end of a normal working day has drawn up and delivered to the quay or barge 400 tons. The number of elevators used at one time on a ship is generally four; but if a ship is in a great hurry, as many as seven have been at work at one time. Although a vessel of between 5000 and 6000 tons has been discharged in two days, the use of so many elevators at one time is rather costly, the best value being got out of the elevator when one is put down each hold.

The wood stored in this dock is known as "soft" wood, and is used principally for building purposes. Practically the whole of it comes from Stockholm.

Nearly 32,000 tons were stored in the year 1911.

The Victoria Docks

These docks, which were built in 1855, were acquired by the London and St. Katharine Dock Company in 1864. They are constructed differently from the other docks, the vessels being discharged at jetties instead of quays. The great advantage claimed by this system is that goods can be trucked across the jetties direct into barges, instead of being housed in the sheds and afterwards delivered to the barges when the ship has left the quay, thus saving the cost of handling the goods twice. The three principal articles housed in this dock are tobacco, grain, and meat.

There is sometimes 20,000 tons of tobacco in bond at one time, and this is the only depot of the kind in London. Roughly, the value of the tobacco is about 9*d.* per lb. The duty is 3*s.* per lb. for unstemmed, and 3*s.* 3*d.* for stemmed tobacco; so that the approximate value of the duty-paid article is nearly £9,000,000. The greater part of the tobacco housed in this dock comes from America.

There is a very extensive accommodation for dealing with grain. In 1902 a silo granary was erected, which was designed to obtain the greatest storage capacity on a given area, and to save time in the unloading and housing of grain in bulk from barges. The cold stores in this dock for frozen meat are also very extensive, and are probably the largest in the world. There are twenty-six chambers, in which 550,000 sheep can be stored, and the building of further stores is under contemplation. These stores are connected with all the main railways. The trucks are brought alongside the chambers to receive the meat, which is delivered daily to all parts of England, Scotland, and Wales. The special facilities for rapid delivery prevent the exposure to the air to which the meat is subject when carted to railway depots or elsewhere for subsequent distribution. The system of freezing at these chambers is the ammonia process as constructed by Messrs. Haslam & Co. of Derby. The ammonia is received in bottles in a compressed liquid state, the bottles being connected with the compressors of the engine. The ammonia becomes gaseous in the process of charging. It is then compressed to the liquefying pressure, which is controlled by the temperature of the circulating water. It then passes the condenser to be liquefied, after which it returns to the liquid state ready for use. When leaving the liquid tank it passes through controlled expansion valves, and expands through a series of tubes into a tank immersed in brine. The ammonia in its transit from the liquid into the gaseous state gathers up the heat from the brine, which is then circulated by means of centrifugal pumps over and down a series of galvanized iron plates, between which the air from the chambers is forced by means of fans and returned in a colder condition to the chambers. The brine falls into the tank, where it is again cooled and pumped for the next similar operation. The gaseous ammonia is pumped back to the compressors and recompressed, and the same operation is continued until the chambers are sufficiently cooled.

The Royal Albert Dock

This dock, with the exception of the cold storage, is not a warehousing dock. The ships simply discharge and load, the goods for warehousing being removed to other docks or wharves.

The Royal Albert and Victoria Docks are connected by a cutting, and with their basins extend from Blackwall to Gallions Reach, a distance of about three miles. The water in these docks is maintained at high-water level by four centrifugal pumping engines of 640 i.h.p., capable of pumping 7,500,000 gal. per hour. There is a water area of 183 ac., with quays providing berths for sixty vessels of the largest size, besides quay accommodation for numerous vessels. The sheds and warehouses in these docks cover an area of over 3,100,000 sq. ft. A very large proportion of the tonnage entering the Port of London enters these docks. There are in these docks about 270 travelling and fixed cranes for the discharge and loading of vessels. Seventeen steam tugs are provided for the transport of vessels and barges in the docks, some of which are fitted with fire engines. There are floating cranes capable of lifting 30 and 50 tons. These docks are some few miles from the City of London, and a special service of trains is run to them by the Great Eastern Railway. To give the reader a clear idea of the size of these docks, one may mention that there are six stations running in a straight line through the docks.

Surrey Commercial Docks

Of all the docks in London the history of these docks is the most interesting. For there is a tradition, supported by the authority of Stowe, that at the spot now occupied by the oldest portion of these docks was the commencement of the trench or canal made by Canute the Dane, to enable him to avoid the bridge when he brought up his fleet to besiege London, in the early part of the eleventh century.

The present Greenland Dock of the Surrey Commercial Docks originated in the Howland Great Wet Dock, which existed in 1660. Although the Howland Dock was not quite 10 ac. in extent in Queen Anne's time, yet it was said to be larger than any pent water in the world, and capable of affording secure accommodation for 120 sail of the largest merchantmen. In 1806 this dock became the property of a Mr. Richie. In 1807 a company (The Commercial Dock Company) was formed for the purpose of providing larger accommodation, and they bought the Howland Dock from Mr. Richie, and also an adjacent dock, calling the property "The Commercial Docks".

In 1808 the Commercial Docks were, by special order of the Commissioners of Prizes, appointed to be "the place for the reception of prize ships and 'unlivery' of their cargoes", and a military guard was appointed for duty at the docks, which was continued until 1809. In 1809 45 ac. of land were bought. In 1850 the East County Dock was purchased for the sum of £40,000.

In 1851 an Act of Parliament empowered the Commercial Dock Company to enlarge their premises, and also to make another entrance into the Thames. The new dock and entrance were opened in August, 1855. In the year 1801 a company, having the title of "The Grand Surrey Canal Company", had been formed with a view to making a canal 4 ml. in length, and in 1802 power was granted by Parliament to make a basin with an entrance into the Thames. In 1864 the companies of the Grand Surrey and Commercial Docks amalgamated as "The Surrey Commercial Docks Company". These docks were chiefly constructed for the storing of timber. A duty at that time being levied, the Commissioners of Customs were petitioned, and a Bond was granted. In the month of November, 1866, the arrival of timber-laden vessels was so heavy, that notice had to be sent to the trade that vessels must wait their turn to discharge.

The Surrey Commercial Docks are the only docks on the south side of the River Thames. They now comprise ten docks and seven timber ponds, with an aggregate water area of 176 ac., and land and wharfage area of 193 ac., making in all 369 ac. of dock property, and a canal extending from the docks at Rotherhithe to Camberwell and Peckham, with an area of 66 ac. There are four entrances from the Thames, extending over a length of 1¾ ml. of the river. The chief commodities stored are soft wood and grain. During the nine months ending 31 December, 1911, 320,000 tons of wood and 86,000 tons of grain were stored. The details of the working of the latter article can be seen under the heading of "The Millwall Dock". (See p. 203.)

The Tilbury Dock

The Tilbury Dock, like the Royal Albert Dock, is a dock for the discharge and loading of vessels. The produce coming to or going from London is principally taken overside from the ships into barges, that method of conveyance being so very much cheaper than rail. Goods that are required very quickly, or that come in small quantities, are put into the London and Tilbury Railway trucks and conveyed to the Commercial Road depôt. (This depot is specially mentioned on p. 207.)

This dock has a tidal basin of 19 ac., which at low-water spring tides has a depth of 26 ft., while at ordinary high-water spring tides the depth is 45 ft.; consequently the largest vessels afloat are

able to enter and leave at any time. In the basin are two arrival and departure quays, each 600 ft. long, for discharging and loading at all states of the tide. There is also a coaling jetty with movable hydraulic cranes, with weighing apparatus for unloading coal from steam colliers into barges, and, by means of bridges connecting the jetty with the land, coals can also be tipped into railway trucks.

This is a very valuable basin as regards the saving of time, as passengers do not have to wait for the tide, but are able to land directly the ship is moored, have their baggage examined in the Customs Examination Room, and take their seats in the special trains provided by the London, Tilbury, and Southend Railway for London; the journey being done in about forty minutes.

The lock connecting the main dock with the tidal basin is 80 ft. wide and 700 ft. long, divided into two chambers, respectively 555 ft. and 145 ft. in length, and there are three pairs of wrought-iron, double-skinned lock gates. Each pair of gates weighs 240 tons, and the width of each leaf is 49 ft.; the depth from the top of the gates to the sill is 44 ft. These gates are opened and closed by hydraulic machinery, set in motion by levers on the quays of the lock.

For equalizing and regulating the water in the lock chambers there is a system of culverts, 10 ft. 6 in. high and 5 ft. wide, connected with the tidal basin, and opened and closed by twelve hydraulic lock sluice machines.

Four large dry docks are provided, in which scraping, painting, and repairs can be effected. The dry docks are enclosed and divided by caissons. The emptying of the larger pair of dry docks, by pumping out 12 million gallons of water, can be performed in one hour. The weight of each caisson is about 240 tons.

The main dock is 1800 ft. long and 600 ft. wide, and each of the three branch docks is 1600 ft. in length. The depth of the main and branch docks is 38 ft. below Trinity high-water mark.

The discharge and loading of vessels are performed by nearly 100 hydraulic travelling cranes of the most approved type. Each crane is constructed to travel by hand gear on rails (13 ft. 3 in. gauge), and is mounted on an iron carriage, and through rail wagons (loaded to a height of nearly 14 ft. from the rail level) can pass on the ordinary line of railway. These cranes lift about 1½ tons, and the height to lift from quay level is 60 ft. They lift at the rate of 180 ft. per second, and can swing a full load round the complete circle in 40 seconds. At the quays in the main and branch docks, which are 13,000 ft. in length, thirty-one vessels of the largest type can be berthed for loading or discharging, and the depth of water admits of such vessels being at all times loaded to their full draft alongside the quay without removal to the basin. On the quays of the three branch docks, twenty-two sheds have been erected on piles. The sheds are 300 ft. long and 120 ft. wide.

The dredger, which is nearly always at work, is 101 ft. long and 20 ft. broad. It has a centre ladder to raise mud or ballast from a depth of 45 ft., working at an angle of 35 degrees, and it has actually raised 210 cu. yd. per hour. This dredger having been completed two years before the opening of the docks, was utilized for raising ballast from the bed of the River Thames for use in making concrete for the construction of the work.

The ships using these docks are principally those belonging to the following lines: Peninsular & Oriental Steam Navigation Company, Orient Royal Mail Line, White Star Line (Australian Branch), Clan Line, Atlantic Transport Line, Bibby Line, City Line, Kosmos Line, Ostend Line, &c. The Ostend Line has three vessels, the *Topaz*, *Rubis*, and *Saphir*, which are chiefly loaded with provisions, and during the months September–April there are two nights in the week which are called "Rabbit and Pork" nights. There is a nightly service, one vessel leaving at 7 p.m., and the other coming in at 9 p.m. The provisions are landed as soon as possible, and are sent to London by the 1.30 a.m. train for the morning's market. The other perishable goods leave by the 9.30 a.m. train. Every berth in this dock is now occupied.

The West India Docks

These docks are situated on a part of the Isle of Dogs, Poplar, London, E., and are 244 ac. in extent, 105 being water. They consist of three parallel sets of docks, each about half a mile long, namely, West India Import Dock, West India Export Dock, and South-West India Dock, with four adjoining basins. There is warehousing accommodation for nearly 200,000 tons of goods. The principal articles stored at these docks are wood, rum, and sugar. At the West Wood Wharf are to be seen large stocks of oak, walnut, and satin-walnut. At the East Wood Wharf are very large stocks of logs of mahogany from Honduras, Cuba, and the West Coast of Africa. At the South Dock Basin one can see enormous stacks of teak. Teak is a most valuable and useful wood, as it (to use a trade term) will not fire or shrink. It is largely used by the railway companies for the building of their carriages, the bodies of which are largely composed of this wood, and the fittings of mahogany. It is also used in the

making of lifts, and in the decks of ships; and on board men-of-war for backing the armour plates. Mahogany is a very valuable wood, special logs realizing as much as £250 to £300, and in one instance a log realized £1000 for cutting into veneers. The bark of this wood is used as a medicine. Trees grow from 80 to 100 ft. in height. The logs, which vary from 5 cwt. to 7 tons, have been known to exceed 10 tons.

The Rum Quay and Vaults have storage accommodation for 40,000 puncheons of about 115 gal. each. This spirit is made by fermenting and distilling the "sweets" that accrue in making sugar from cane juice, the scum from the sugar pans giving the best rum. The flavour mainly depends upon the climate.

Directly the casks are landed they are sounded by the cooper with a flogger, in order to ascertain their condition. They are then rolled to a place on the quay and "made up", that is, four pieces of wood called scotches are placed underneath to keep them firm. The cooper, in the presence of the Customs officer, then "flogs" the bung out, and the officer gauges the contents. A landing sample is first drawn, which is sent to the merchant, and also one for the Customs Laboratory, in order that the strength may be known. No duty is charged on these samples.

On the north side of the lock, at the Blackwall entrance, is a building which contains four centrifugal pumps of 760 i.h.p. This powerful machinery is used for pumping water into the dock, for the purpose of making up the loss of water caused while the ships are passing through the locks, or entering or leaving the docks. The pumps are able to raise 7,500,000 gal. an hour, or at the rate of 3½ in. on the area of 105 ac. which they have to keep up.

Most interesting to visitors are the two guard-houses, erected in 1802 for the accommodation of troops provided by the Government for the more efficient protection of the dock property. These troops supplied the eight sentry boxes round the docks, and each sentry had a bell in the box which he sounded at intervals. As an additional protection a ditch was made round the docks, a part of which can still be seen.

Town Warehouses

To suit the needs of the trade, and to provide further housing accommodation, four warehouses, all of which are practically in the City of London, were built by the Dock Companies.

The largest of these groups is the Cutler Street Warehouses in Houndsditch, which have room for about 20,000 tons of goods, and cover 5 ac. of ground. The principal article stocked here is tea, and a large business is done in the packing of tea into tins and packets, for sale by dealers for exportation.

A very large quantity of Persian and Turkey carpets and Chinese and Japanese ware is stored in these warehouses. Egg-shell porcelain, in which the Japanese excel, finds a resting place on the ground floor. Cloisonné is also seen here, and is a ware only made by the Japanese during the past century. The effect produced is to make a metal vessel look like a porcelain one. It is no uncommon thing to see some old blue chinaware and Japanese bronzes of very great value in the curio room.

Among other articles to be seen at this warehouse are raw and waste silk, and piece silk goods from China, Japan, and Bengal; also ostrich feathers, and bird skins of the most lovely hues from all parts of the world.

There are six sales of feathers every year. The best ostrich feathers are the thirty-four taken from the wing of the male bird, and it is usual to distinguish the choicest by tying the bundles with coloured ribbon. The value of the feathers sold annually is about £1,000,000. The "Fancies" are sold at the end of each feather sale, and include plumes of the bird of paradise—of which there are about thirty varieties—and the osprey, and coloured skins of parrots, pheasants (from the Himalayas), and humming birds. Osprey plumes are sold by the ounce, and the best realize as much as £10, 10s. per oz. Several millions of bird skins are sold here every year. They are used by naturalists, for millinery purposes, and for making flies for fly-fishing.

It is indeed a beautiful sight to see all the skins set out for show. Many illustrious visitors call to see the treasures of this warehouse. Her Majesty Queen Alexandra did so on 30 June, 1904, and after inspecting the different departments, stayed to tea.

The Crutched Friars Warehouse

is in the heart of the City. It stands on the site of the Admiralty Offices, where Samuel Pepys lived and wrote his famous Diary. This is the great storehouse for cigars and cigarettes, as many as thirty millions of the latter being stored here at a time. There are also many hundreds of cases of Cavendish tobacco stored here—over 240,000 lb. net being in bond at one time. All the great drug staples of the world are to be seen here. The aloe is a very valuable plant of about 200 species. The natives of the West Coast of Africa make cords and nets of the fibres of the leaves, and

stockings are woven from the fibres of a species found in Jamaica. But aloes are chiefly valuable for their medicinal properties. They are received in the warehouse in boxes and gourds, and sometimes arrive packed in monkey skins. Each package received into store has to be examined for damage, classified, stored for quality, and sampled.

The Commercial Road Warehouse is just on the outskirts of the City, and is built over the goods depot of the London, Tilbury, and Southend Railway. The warehouse and depot were specially designed for the accommodation of the traffic to and from the Tilbury Docks.

The last and most recently constructed town storage is the West Smithfield depot for the storage of frozen meat, and is in juxtaposition to the meat market, thus affording special facilities for the immediate storage of meat not sold in the market. One hundred thousand sheep can be stored here. The refrigerating process employed is the carbonic anhydride system as constructed by Messrs. J. & E. Hall, in which the process of the ammonia system is adopted, with the exception that carbonic anhydride (CO_2) is substituted for ammonia.

Frozen butter, cheese, and poultry are also stored here.

The New South Albert Dock

This dock was begun in 1912, and it is estimated that the cost will be £2,000,000. The dock will consist of entrance lock, 800 ft. by 100 ft.; main dock, 4500 ft. long and 600 ft. wide; a dry dock 1000 ft. by 110 ft.; water channel from Albert Dock 100 ft. wide, railway lines and six transit sheds; jetties for barges; the water area is 65 acres, and the depth 35 ft.

The contractors, Messrs. S. Pearson & Son, Ltd., are under penalties to complete it in 1916.

When the dock is ready it is anticipated that much American traffic will make London its terminus, though Liverpool will probably retain the boats on the express service.

Two more new docks, even bigger than the South Albert, are projected in the near future. One, north of the present Albert Dock, is to have an area of 126 acres, and the other, at Tilbury, of 136 acres. These would be the largest docks in the world. Upon the North Albert Dock over £4,000,000 will be spent, and at Tilbury over £2,000,000.

DELIVERY OF GOODS

Certain documents are required by the warehouse keeper before the goods can be delivered.

Bills of lading to be produced in the following cases:—

- Goods from places to the eastward of the Cape of Good Hope.
- Goods from the West Indies or the U.S.A., unless the master of the import ship, or the owner's representative, sanctions the delivery to the consignees named in the manifest.

They will also be required for other goods, and in other cases, unless the docks officials are satisfied that the bills of lading have been produced or are not required as evidence of ownership.

Particular attention is necessary to the regularity of the endorsement of bills of lading, as the officials at the docks cannot pass any bill on which the authority from the shipper to the holder is not deduced by a complete and accurate chain of endorsement.

Every bill of lading should be specially endorsed, so as clearly to designate the party to whose order the contents are to be delivered.

In all cases of informality in bills of lading from want of endorsement, &c., or of their being lost, the applicant has to indemnify the warehouse keeper against loss or damage, and has also to produce any documents which will show the title to the goods.

An order for the delivery or transfer of goods must be signed by the person or persons in whose name or names the goods stand in the books of the warehouse keeper, or by an agent duly authorized in writing under the hand of the aforesaid person or persons. Any interlineation, erasure, or other alteration in a delivery order must be initialled by the person or persons signing the order.

To cover the cost of services rendered the warehouse keeper issues an Import Charge to the Merchant. (Form 8.)

Warrants

A warrant is the only document issued by the warehouse keeper entitled to be considered a legal symbol of the goods therein described, and the goods may be transferred by endorsement thereon without the warrant being produced at the warehouse keeper's office.

Warrants for goods are issued, on written application, in favour of such person as the owner may direct (subject to the conditions specified on the

documents), and when lodged, duly endorsed, entitle the holder to transfer or delivery of the goods. No warrant is issued until the stop for freight, if any, has been removed; nor until the landing and other charges are paid, except a "prime warrant", which carries landing as well as other charges.

A warrant bears a 3*d.* stamp. A warrant being negotiable, a merchant who has goods which are likely to stay in store for a considerable time, and who wishes to avoid the capital they represent remaining idle, may take one to his banker, and has no difficulty in pawning it, so to speak, up to within 20 per cent of its face value. (See Form 1.)

Entry Forms

The goods being stopped for freight, &c., by the shipbroker, the merchant or warehouse keeper, after paying the Port dues, goes to him, presents the receipt for the said dues, pays his freight charges, and has his bill of lading released. His entry form having been made out, showing the particulars of the goods and the net weight, it is taken to the Custom House, where the official passes it in duplicate, one copy being handed to the people responsible for the discharge of the vessel, and the other to the Customs official on the station at which the ship discharges. A maker of a false declaration incurs a penalty. (See Form 3.)

If the owner is not certain of the description of the goods, he passes a "sight" entry, when every package is opened and examined, and the entry perfected. The goods are then landed, and if not required for immediate delivery they are warehoused, weighed, sampled, and tared, and the landing accounts and samples sent at once to the selling broker or merchant.

The duty in all cases must be paid before delivery. When it is paid, the Custom House authorities hand a permit to the one who pays it, addressed to the Customs officer at the department where the goods are stored. No dutiable goods may be delivered without a permit. (See Form 4.)

When a merchant wishes to remove spirits from one bonded warehouse to another the following Form 6 is filled in.

Landing and Warehousing

The short sea traders generally bring their own papers, and, always being in a hurry, no time is given. If no application is made, the goods are immediately landed, or placed in the captain's entry barge—the captain passes a nominal entry for all unclaimed goods. The merchant at the port from which the goods are shipped has to cable to the consignee in order that he may prepare his entry papers, &c., and have his barge alongside, to avoid landing charges. But with other ships it is the custom to send a copy of the manifest, by mail, to the shipbroker, who places it on his counter for inspection.

The docks and wharves have a large staff of canvassers, who visit the shipbrokers' offices and look at, or copy, the manifests. Some shipbrokers simply give a statement of the marks, with the quantity and description of the goods; while others also give the shippers and consignees. When a canvasser recognizes a parcel which is generally housed by his employers, he goes to the merchant and asks that he may be allowed to house it. If successful in his application, he is handed the bill of lading, and cheque for freight, and sends along his barge in time to meet the ship before it commences to discharge. Some brokers allow twenty-four hours from report, but others do not allow any time. These latter ships are called "prompt ships". If the barge is not alongside the vessel before the time allowed expires, the goods are landed and the consignees have to pay the landing charge; but if the barge is at the ship's side in time, the goods are delivered to him free of charges even if they have had to be landed. Shipbrokers as a rule prefer to deliver the goods over the side of the vessel direct into the barge, as it saves a second handling; but if the ship is on "time charter", and there is not much time to spare, the whole cargo is landed, as it is so much quicker than putting the goods overside into the barges.

Some shipbrokers trading between America and London have what is called a "London clause" on their bills of lading. An additional charge is made by the shipbrokers for goods on these bills of lading, to cover the expenses of landing and delivery, provided they are taken away within three days of the ship's report at the Custom House. If they are left for more than three days, the goods are handed over to the dock official and full landing charges have to be paid, as well as the rent for housing accommodation.

Customs Examinations, &c.

Not many years ago when a ship arrived at Gravesend, she was boarded by a Customs officer, accompanied by his rummagers, or searchers, with their sword-sticks and lanterns, who did not leave the ship until she was discharged. There were then about 300 men on that particular duty. As the men were pensioned their places were not filled, so that at the present time there is only a small

number, who pay surprise visits here and there to a ship when she arrives at the mouth of the river. Every ship, however, is boarded by rummagers on her arrival in the docks, or at the buoys in the river; and it is the duty of these officers to search in every nook and cranny for contraband, which is sometimes found in the most remarkable places. An officer told the writer that his men had found many pounds of tobacco tied at the end of a piece of wire, which was hooked to the top of the inner funnel. On one occasion the officer was sitting on the steward's chair, and by accident put his hand on the under ledge of the chair, and feeling something softer than wood, turned it up, and found a large number of cakes of tobacco nailed thereon. When anyone is caught he has the option of paying treble value and duty, or going before a magistrate, who sometimes lets the defaulter off with double or single value and duty. As a rule the man chooses the former, and escapes the worry and trouble of appearing in Court, and also the publicity of his act. Contraband goods are now taken to the vaults of the Custom House, and are sold once a year. Not many years ago they used to be burned in the "Queen's Pipe"—a large furnace at the dock.

As the ship enters Gravesend the captain signals the engineer to slow up, in order that the quarantine officer may board her; and if, after enquiries, the officer is satisfied that those on board are healthy, he gives the captain a pratique, which the captain has to hand in when making his report to the representatives of H.M. Board of Customs at the Custom House. The report of the captain is not accepted unless he has his pratique.

There have been occasions, though few and far between, when the tide, or negligence on the part of the officer in charge of the vessel, has carried the ship past the officer's boat at too quick a rate for him to board, and also a long distance beyond the point of boarding. In such cases, if the officer is of opinion that the captain has not tried his best to ease up his ship, he refuses to follow, and the ship has to turn round and pick up the officer, for it would be useless for the captain to go to London without his "permit", as the officials are not allowed to commence discharging the vessel until she is cleared by the Customs.

On arrival in London the captain, as before mentioned, reports his ship, and hands in his pratique and manifest. The Customs authorities enter the ship, give it a number (known as the Rotation number), and forward a copy of the manifest to the Customs officer on the station at which it discharges.

The shipbroker also sends a copy of the manifest to the dock officials, in order that they too may check the goods as they are placed on the quay or in the barge. Directly the ship is reported by Lloyd's off the coast, the merchant or warehouse keeper, if the goods are from a foreign port and are to be landed, makes a declaration on a form, showing the ship, the date she reports, the port from whence she comes, the place of discharge, the name and address of the persons responsible for the Port rates, the particulars of the goods, the gross weight, the rate of the dues per ton, &c., and the total amount to be paid. Every merchant has a Port-rate book which enables him to give the rate. If the goods are for transhipment, the owner has to make a declaration on the examination form provided. No Port dues are levied on these goods. (See Form 2.)

Exports

Before a master can put a cargo on board, he must receive permission from the Custom House authorities, informing him that the ship is "clear". Sometimes it is necessary to begin loading before the vessel is quite empty; in that case the Customs officer will "clear" the hold, in order that the loading may commence.

As a rule, the master has knowledge of what is to be loaded, and he orders, through his agent, the different commodities to be alongside (if in barge), or takes those goods from the shed or van that will make the best stowage for the ground tier, and builds his cargo up accordingly. Very great care is taken to stow the cargo in such a way that it shall not shift, as it is most essential for the safety of those on board that, when the ship is pitching and rolling, none of the cargo shall move. Ships have been lost through bad stowage.

A merchant having goods for export sends them, by rail, van, or barge, to the dock or wharf at which the ship is to be loaded. Those loaded from the quay pay dock or wharf dues to defray the cost of unloading from the van or truck, placing in the shed, rent, and delivery to the stevedores on board. (See Form 7.) If they are taken to the ship on barges there are no wharfage dues, as the barge is allowed free use of the dock water, and the stevedores put them on board by their own steam. Barges are cheaper for large quantities; cartage is to be preferred for small, as a lighterman always makes a minimum charge which generally exceeds the cost of cartage and dock dues on small consignments. After getting his goods to the dock the merchant takes out a bill of lading, and, in the case of free goods, makes out a specification which he hands to the Custom House authorities. When the ship is loaded her manifest is sent to the Custom House, and if the

goods thereon have not been specified, or have been wrongly described, a penalty of £5 is incurred by the owner. A breach of the regulations having been committed, the Customs notify the owners, and if the explanation of the breach is satisfactory, and an apology offered, the penalty is seldom enforced. If a fine is imposed and a person will not pay, the Custom House authorities have the power, though it is not often used, to arrest the delinquent. The Port dues have also to be paid on shipment of the goods, a special form being provided for the purpose.

Duty and Drawback

In the case of dutiable goods, if they have been in bond, they are removed under bond by a bonded carman or lighterman to the ship, where they are closely examined by the Customs officer in charge, and checked by the particulars given on the form sent by the Customs officer in charge of the bond. Where duty has been paid, a drawback is allowed when the goods are exported. In the case of large consignments of jam or biscuits, the maker obtains a drawback on the amount of sugar contained in the articles. The return in these articles, comparatively speaking, is so small that the amount claimed by a reputable firm is seldom questioned; but if there is any doubt a sample is taken and analysed, and an amount returned accordingly. With regard to British manufactured articles such as whisky, gin, beer, &c., an allowance is made on analysed samples taken at the time of export if the duty has already been paid. In the case of whisky it is removed to a bond directly it is distilled, in order that it may mature, and as the duty is not generally paid there is seldom any drawback; but in the case of gin, owing to its being manufactured from strong spirit, the duty is paid on the article as it leaves the vat. The maker or rectifier of gin, wishing to send some abroad, puts the article into bond, and gets a refund of the duty paid, according to the amount of proof spirit shown in the analysed sample. A higher strength may be claimed than is justified by the sample.

The duty on tobacco and cigarettes varies according to the percentage of moisture, and it is for the officer to sample at the time of export. This sample is placed in an air-tight chamber and forwarded to the analyst at the Custom House, and a drawback allowed according to the percentage of moisture.

As regards bonded goods an export bond is given at the Custom House. This bond is taken to the station by the merchant, where the particulars are verified that the goods are in stock; it is passed to the officer in charge of the bond, who examines the goods, and makes a statement at the back of the shipping bill, giving a full description of the goods in question. This shipping bill is taken by the bonded carman or lighterman to the export station with the goods. The shipping bill is handed to the officer in charge of the station. who examines them again, in order to see that they have not been plundered in transit. He then allows shipment, if in order, and after shipment he obtains a receipt from the chief officer of the ship stating the goods are on board. The Customs officer has then to make a definite statement that the goods have been exported on the shipping bill, which is returned to the Custom House, and the bond technically cancelled. (See Form 5.)

LOADING, STORAGE, ETC.

The stevedore, by virtue of his expert knowledge in the stowage of cargoes, receives more pay than an ordinary labourer. There are laws and rules governing the stowage of certain goods, and it is the duty of the stevedore, acting under his foreman, to see that they are carried out. Neglect on the part of the stevedore will sometimes mean a loss to the owner of the vessel; because, if on the arrival of the vessel at its destination the packages are damaged, and the surveying officers certify that the damage was owing to "bad stowage", the liability falls upon the shipowner, and the underwriters will not pay.

Two or three examples are given here to show how certain articles should be stowed.

Acids.—All dangerous acids in carboys must either be packed in sand in the hold, or on the deck. The bill of lading is generally claused "With liberty to throw overboard for the safety of the ship, if deemed necessary". Underwriters object to the stowage of dangerous goods in the hold. (And see Part VI.)

Ale and beer for exportation is, as it is termed by brewers, "higher hopped", and undergoes a different kind of fermentation than that for home consumption. Ale has been known to keep for two years in India. For southern voyages casks are sometimes spiled with rattan cane cut close, or with porous spiles of red oak, &c. Ale and beer ought not to be placed near goods of a heating character, such as coal, flour, sugar, &c.,

as these create additional fermentation, besides which the dust from coal chokes the spiles of the casks and prevents the ale from relieving itself on the voyage. The best months for the exportation of ale and beer are from November to April.

Cotton.—Very special care has to be taken in the storage of cotton, jute, wool, &c., owing to the tendency when damp, or when they become wet through leakage, to spontaneous combustion. A large amount of dunnage has to be used, and mats or bamboo cane are placed against the side of the ships. Where vegetable oil—linseed especially—or tar is spilt on cotton, and afterwards subjected to moisture, spontaneous combustion is almost sure to ensue. A saying in New Orleans is "that there is sufficient oil even in one seed when crushed or broken to ignite a whole cargo". When stowing cotton, soft soap is sometimes used to lubricate the sliding boards, or the sides and ends of the bales; occasionally it is also applied to the screws of the pressing boards instead of oil to decrease the risk of spontaneous combustion. The American insurance companies charge a reduced rate of premium for insuring cotton packed in iron-bound bales, because the hoops resist fire, retain the cotton in a packed mass, and thus prevent the access of air necessary to sustain combustion; whereas with rope-bound bales the hemp becomes charred, the bales open, and the fire spreads rapidly.

When a ship carries a cargo chiefly composed of wool and suchlike goods, she also carries a dead-weight as ballast, such as pigs of lead, at a nominal rate of freight.

Grain.—A knowledge of the seasons of this important article is of the utmost consequence to the owners of a ship, as they may be tempted to charter a vessel with some other goods at a low rate of freight under the impression that a cargo of grain can readily be obtained at the port of discharge. There are some ports which are closed to traffic by ice in the cold season; and the state of the market has to be closely watched. Small vessels are better than large ones for the carrying of this article, as they do not strain so much, and are less likely to leak. As many cargoes arrive damaged to a certain extent, and consignees some years ago refused to pay the rate on the damaged portion, the charter party is claused, as a rule, to the effect that, in the event of the cargo or part thereof being delivered in a damaged condition, the freight shall be payable on the quantity taken on board as per bill of lading, or half freight on the damaged portion. (See also as to "Grain Cargoes", Part VI.)

Gunpowder.—In the case of a cargo of gunpowder all fires, lights, and smoking are strictly prohibited. It is usually stored in special magazines made of wood, and if there is not a special magazine one may be built among the cargo least inflammable, and as remote from iron as possible. Gunpowder is loaded in the river.

Gold.—This is placed in the strong-room and the key kept by the master. Great care is taken by shippers to see that the conditions of the bill of lading are strictly adhered to.

[We are indebted to the Port of London Authority for much of the above information and for the use of Forms.]

THE DOCKS OF LIVERPOOL

The Port of Liverpool is second in importance to London, and is gradually creeping up to the premier position. The earlier history of the Port of Liverpool is very interesting. The most ancient document now in existence in which the town is mentioned by name, is a deed executed in the reign of Richard I by John, Earl of Mortain, afterwards King John, in which he confirmed Henry Fitz Warin in the possession of Liverpool. It is assumed that it was used as a place of shipment for the salt which was brought in large quantities from Cheshire, and that it also had a share of the Irish trade which came to the natural harbour formed by the "Pool". This Pool probably the cause of the creation of a small town here, was a creek which left the river where the Custom House now stands, and afforded shelter for the small boats engaged in fishing and other industries. King John was in reality the founder of the city, and desiring to prosecute to the best advantage his scheme for the complete conquest of Ireland, he determined to take possession of Liverpool and form a port. Up to this time there was no port in Lancashire.

In 1708 the Council resolved to accept the plan of their surveyor for the conversion of the Pool into a wet dock by impounding the water with floodgates so as to keep the vessels floating during the recess of the tide. A Bill was immediately brought before Parliament soliciting power to raise money for the purpose. After much opposition the arguments for the promoters prevailed, and an Act was passed authorizing the forming of the Dock of Liverpool, the first dock of the kind constructed in England, on a piece of ground, now the site of the Custom House. The

dock was opened in 1715. In the same year Acts were passed for rendering the Rivers Mersey and Irwell navigable from Liverpool to Manchester. Further accommodation being necessary the Salthouse Dock was built. A pier was built on the north side of the entrance to the old dock to shelter vessels which had to wait in the river for a fair wind, and the pier formed a sea wall, extending from the old dock gut to the river, which, having no floodgates, was empty at low water, and hence called the Dry Basin. The Trustees converted it into a wet dock in 1829, when it received the name of Canning Dock. Under this Act twelve Commissioners were appointed to audit the dock accounts. In 1761 the George's Dock was built. By the new Act the property in all the docks, piers, &c., was vested in the Mayor and Common Council of Liverpool.

It had been found necessary in 1785 to apply for powers to form additional docks, and in 1788 the King's, and in 1796 the Queen's, Docks were formed, the area of the Corporation's property being now over 28 ac.

The management of the docks was delegated to a committee of twenty-one selected from the Common Council, who were to be known as the Trustees of the Liverpool Docks.

Dock rates were now levied on goods as well as ships. Parliament also gave permission at this time to fill in the old dock and to erect a Custom House, dock offices, and other commercial buildings on the site. The gain in land enabled the trustees to build the Union Dock, with a large outer basin which was subsequently formed into the Coburg Dock. In 1858 these two docks were united, and the name of Coburg retained. The shipping was cleared out of the old dock in 1826, and the foundation stone of the Custom House was laid in 1828. In 1825 Parliament gave power to extend the docks north and south, and also determined that in future the Common Council should only nominate thirteen members of the Dock Trustees, the remaining eight to be elected by the dock ratepayers. Under this Act the following docks were opened: the Clarence in 1830, the Brunswick for timber in 1832, the Waterloo in 1834, the Victoria and Trafalgar Dock in 1836, and the Albert Dock in 1846. The Morpeth and Egerton Docks were opened in 1847.

In 1844 Parliament granted permission to construct docks at the north end of Liverpool—the Salisbury, Collingwood, Stanley, Nelson, and Bramley-Moore Docks being opened in 1848, and the Sandan in 1851. In this year it was ordered that the Dock Committee consist of twenty-four members—twelve to be nominated by the Council and twelve to be elected by the dock ratepayers. In 1852 the Huskisson Dock was opened. Owing to dissatisfaction a Royal Commission was appointed in 1853, which recommended that a new body be formed to take charge of the docks and harbour, and a Bill was passed giving power to the Mersey Docks and Harbour Board of twenty-eight members to take over the entire control of the Port accommodation, twenty-four to be elected by persons paying rates and dues on ships and goods only, and the other four by the Mersey Conservancy Commissioners. The new Board met for the first time in 1858.

The first dock constructed by the Board on the Liverpool side of the river was the Canada Dock. This dock was opened in 1859 for the accommodation of timber.

The vessels now using the Port were so large, that an Act was passed in 1873 giving power to expend £4,100,000 on new docks at the north and south ends of the estate. The Brocklebank-Langdon and the Alexandra were opened in 1881. The Harrington Dock was opened in 1883, the Hornby Dock in 1884, and the Toxteth Dock in 1888. The Brunswick and Toxteth Docks were united in 1889.

In 1898 various improvements were made, and the Canada-Huskisson system now affords greater depth of water and provides better accommodation for the present-day giant liners than any other.

In 1906 Parliament authorized an expenditure of £4,500,000 for the erection of new docks. The scheme embraces:—

The Half-tide Dock; the river lock entrance, 870 ft. in length and 130 ft. in width, and having a sill 30 ft. below datum; a lock 645 ft. long and 90 ft. wide; two branch docks with double story sheds. These docks, under the name of the Gladstone Docks, are for the accommodation in the future of vessels of exceptional size. The Board have under consideration a large dock, to be approached directly from the river by way of a specially constructed channel, and to afford accommodation for ships up to 1000 ft. in length. The leading dimensions of this dock will be: length, 1020 ft.; width of entrance, 120 ft.; depth of sill, 25 ft. below old dock sill; length of quay (straight), 1755 ft.

In 1900 the water was run out of George's Dock and a magnificent esplanade was made, on a portion of which the Dock Board erected their new palatial offices. From the Hornby Dock, at the north end of Liverpool, to the Herculaneum Dock, at the south, the river has an unbroken front of over 6 ml. of docks and basins, with a water area of 427 ac., and a length of quay of over 26 ml., affording accommodation from the small coaster

to the gigantic Atlantic liners. On the opposite side of the river the Birkenhead Docks have a water area of 172 ac., and 10 ml. of quayage. The area of the dock estate is 1677¼ ac. The Board are the pilotage authority from the middle Mouse Island, off the north coast of Anglesea, to the River Mersey. The extensive system of lighting and buoying in the Liverpool Bay, the sea channels leading to the Port, and in the River Mersey, is under the control of the Board.

There are five lighthouses, five telegraph stations, five lightships, and ninety-seven buoys in the Liverpool district.

About 13 ml. from the landing stage is the Mersey Bar, a bank of sand and silt, which barred vessels entering at low water. To increase the depth of water, dredging was commenced as an experiment in 1890, and up to 1909 42,157 tons of sand had been removed from the bar. The depth of water at dead low water of spring tides before dredging began was only 11 ft.; it is now 30 ft. In 1909 a monster dredger named the *Leviathan* was completed at a cost of £150,000 and put to work. This vessel, with hopper capacity of 180,000 cu. ft., is capable of filling itself with 10,000 tons of sand in fifty minutes, from a maximum depth of 70 ft. Any vessel may now come over the bar at any state of the tide. The tides vary so considerably that a special device, by which the vessels can discharge at all times, became necessary, and in 1847 a landing stage was built at a cost of £35,000. It was 500 ft. long and 80 ft. wide, and was supported on iron pontoons. It was soon found to be too small, and in 1857 a new landing stage was completed and opened, at an expense of £130,000. It was 1002 ft. in length and 81 ft. wide, connected with the land by three bridges rising and falling with the tide. Powers having been obtained in 1871, the stage was reconstructed, and the two separate portions (the George's and Princes Stages) were united by a new construction, and the entire floating platform extended 2063 ft. in length by 80 ft. in average width. This was destroyed by fire, but in 1876 the new stage was completed, and, with extensions at various times, it now has a length of nearly half a mile. It rests on 200 iron pontoons, and is held in position by a number of bridges connected with the shore. For the transatlantic and other vessels movable gangways are used, and high-level bridges adapted to the towering decks of the monsters of the ocean. The Board have several large bonds and warehouses in the town. An immense tobacco bond has been recently erected at the Stanley Dock. This bond is probably the largest warehouse in the world, being 125 ft. high, with a total floor area of about 36 ac. A ground tier of 60,000 casks can be stored at one time. Twenty-seven million bricks and 6000 tons of iron were used in the construction. There are also at this dock two similar warehouses capable of storing 38,000 casks of tobacco.

Over 120,000 casks are now housed in these warehouses. Special warehouse accommodation is also provided for the storage of grain at Liverpool and Birkenhead for 60,000 tons. The wool warehouse has actual storing accommodation for 118,000 bales, but as a large proportion of this accommodation is used for showing purposes, the working capacity is reduced to about 54,000 bales.

In the year 1757 the number of vessels entering the Port was 1371, and the total rates and dues paid on these vessels and goods £2336, 15*s*. In 1909 the number of vessels had risen to 24,799, with tonnage of 16,747,479, the total rates paid on vessels and goods amounting to £1,363,591.

As regards her export trade, Liverpool stands without a rival, as the following comparison will show:—

Liverpool	£157,464,098
London	120,545,867

The next port [Hull] falls to £27,000,000.

In the case of imports, Liverpool stands a good second to London, and largely exceeds any other port in the kingdom.

As a tobacco centre Liverpool has no rival in the country. In the year 1909 778,335 tons of cotton and nearly 350,000 tons of sugar were landed. The tanks for the storage accommodation of petrol in bulk hold 12,500 tons; they are surrounded by moats capable of containing the contents of the tanks in case of accident.

Liverpool, being the gateway of the Atlantic, has been in the front rank in the provision trade.

Liverpool is the principal distributing centre for the North and Midlands, and nowhere in the British Isles, or even in the world, will be found a more elaborate and effective network of lines.

The limits of the Port of Liverpool were defined by the First Dock Act (1709) as from a place called Redstones, and from thence all over the River Mersey to Warrington and Frodsham Bridges.

Custom of the Port

In strong contrast to London, where the goods are largely taken overside from the ship into barges, owing to the distance of the docks from the City and the storage of goods in riverside wharves, the cargoes at Liverpool are practically all discharged on the quay and carted to the warehouses (which number nearly 500) in the city. In London the average rate for cartage is about

3s. per ton, but in Liverpool, possibly owing to the limited area, it is very cheap, being roughly 1s. 3d. per ton. When the goods are landed on the quay they are placed under the care of a master porter. There are firms who act as master porters, but the consignee paying the most freight may, provided he is licensed, become a master porter. Having elected to act for the vessel a master porter must not in any case transfer the master porterage of such vessel to any other master porter. It is the duty of every master porter to give notice to the owners having goods on board, of the time and place of discharge of such vessel, and he must proceed without delay to load the cargo into the vans before the expiration of the period allowed for the removal of the goods from the quay. Any goods not taken away within the allotted period are sent to the warehouses of the Board. A master porter is responsible for the whole cargo while it is under his care, and he has to execute to the Board a bond with two approved sureties.

The Customs regulations for Liverpool are practically the same as those in force in London.

[We are indebted to the courtesy of the Mersey Dock and Harbour Board for much of the above information.]

This brief description of the docks of London and Liverpool will suffice for our purpose. It is not necessary to treat specifically of the dock systems of other ports. Some general information with regard to the ports of the world will be found in Part II, and also in Chapter I of this Part.

WAREHOUSING AND STORAGE

Warehousing, or the storage of goods, may be roughly divided into two classes: household effects and general merchandise. Both of these sections are important branches of the trade, and represent a large expenditure of capital in the shape of buildings and plant. Generally speaking, the warehousing business, whether of furniture, i.e. household effects, or of general merchandise, is a development of and an important auxiliary to the transport of goods.

Furniture

As regards the former, the furniture warehouseman is invariably a removal contractor, although the converse is not always the case. The one is, however, an important feeder to the other, and the two functions are recognized as of equal importance by the association which represents this trade. In the same way the common carrier is usually a warehouseman in some form, often to commence with merely obliging his customers, and then developing this branch of his business, and adding separate warehouses and wharves to his equipment so as to cover goods received either by land or water.

The great difference in law between the carrier and warehouseman is noticed elsewhere (see p. 217). The conditions of the contract, in so far as they are reasonable, will generally govern a transaction, though the custom of the trade may often have an important bearing.

The storage of furniture has become an integral part of the removal business, and depositories are constantly being built and filled with goods, and when carried on under proper conditions the warehousing department is a very remunerative one.

This business, like the removal trade, has developed rapidly in recent years, the growth of railways giving an impetus to the desire for change, and making easy the transportation of household furniture from one part of the country to another. Increased facilities have also rendered it a common occurrence for furniture to be stored while the owner is abroad or visiting and his house is shut up, or because he has given up one house and has not decided upon another. In the early days of the business it was usual for the furniture remover to carry out contracts, taking all risks, without any proper and carefully-drawn-up contract. So, too, he undertook to warehouse furniture without safeguarding himself against the many risks which he ran, and in many cases the warehouse in which the goods were stored was very ill-suited to the purpose, and certainly not specially built and adapted to meet the very necessary requirements. As time went on, the warehouseman and remover began to appreciate his legal liabilities and the practical difficulties to be contended with, and proper conditions were gradually evolved in order to afford protection to the individual trader against unjust claims and unreasonable responsibility.

Steadily the storage business grew and progressive firms built up-to-date depositories, of great capacity, and with special conveniences for the safe storage of every description of household and personal goods. A leading part in this development was taken by the great stores and others, whose depositories occupy large areas and form landmarks in their respective localities.

A visit to such a depository is full of interest, and gives an insight into the care with which

furniture is stored, and the precautions taken to prevent damage of any kind. The safeguards against fire are a special feature of modern depositories. Separate rooms are set apart for storing pianos, and here may be found pianos which have been kept tuned and in good condition for years. The price for storage with the best firms is 12s. per load per month. Then special lock-up cubicles or compartments can be obtained at an extra charge, where a customer can keep his goods separate from all others, and have them overhauled from time to time. In many cases ambassadors, army officers, or colonial officials have their furniture stored while away from this country. Travellers also will sometimes have their personal effects stored, and from time to time will write for certain articles to be forwarded to them as if from their own home.

Special precautions have to be taken against damage by moth, a deadly enemy to goods stored away. A cold-storage room is another feature of modern depositories, and here valuable furs and other costly articles are kept at a very low temperature, which prevents the possibility of damage.

A big step forward in the development of the trade was made in the year 1900, when a few members met together and decided to form an association to be known as the Furniture Warehousemen and Removers' Association. The association has steadily grown in numbers and usefulness year by year. It has a membership of over 300 firms drawn from all parts of the United Kingdom, with offices and secretary. A pamphlet has been published in order to bring the objects and benefits of the association to the notice of all engaged in the warehousing and removal trade who are not already members. These objects are to bring together in conference all firms engaged throughout the United Kingdom in the removal and storage of household effects, and to promote confidence amongst members; to advance the interests of these trades, and aid members in resisting unjust claims; to maintain uniform conditions in regard to warehousing and removal of household goods, and thus establish "customs of the trade", a matter of great importance; to foster legislation in matters favourable to the trade, or to oppose unfavourable measures; and to ensure unity of attitude towards insurance, railway, shipping, and other companies, particularly in regard to rates, charges, rebates, conditions of carriage, damage, &c.

Customs of the Trade

The remover and warehouseman has no special Act which clearly defines his duties and liabilities. He has therefore had to contend against claims of every description, just and unjust, and only by sad experience has learnt how many risks he must safeguard himself against. In years gone by contracts were entered into light-heartedly without any written conditions or signed agreements, and endless trouble and expense was the inevitable result. It therefore became necessary to build up recognized customs of the trade which could be brought forward in a Court of Law and upheld. For this purpose a set of warehousing and removal conditions was carefully drawn up under legal advice, and these conditions have been adopted by members of the Furniture Warehousemen and Removers' Association, and form an essential part of their contracts. The result is that a lien on all good held by the remover and warehouseman is established; his liability is strictly limited both in amount and also as to the variety of claims which can be brought against him. In order to ensure the acceptance of these conditions in a Court of Law, it is important that they should be adopted by all the members of the trade, who will at the same time protect themselves in the best possible way.

The following are the conditions agreed to by the association and in common use by the members:—

1. All persons sending property to be warehoused are to furnish an address to which communications may be directed, and to register their signatures with Messrs. .... [the warehousemen] for mutual protection.

2. Goods of a dangerous or explosive nature must not under any circumstances be sent for warehousing. If any such articles are sent, Messrs. .... may remove them at their discretion, and may sell, destroy, or otherwise dispose of them.

3. All properties are received and will be held subject to a general lien for all moneys owing to Messrs. ....

4. No property will be delivered from the Depository without an order in writing signed by the Depositor or his or her authorized agent, nor until all moneys owing to Messrs. .... have been paid.

5. On delivery of the property, the Depositor or his or her authorized agent should be present to check the Inventory and sign receipt. If any claim should arise in respect of damage it must be made within three days after delivery, or, if in respect of alleged loss, within three days after the goods alleged to be lost should in the ordinary course have been delivered, and when workmen other than those of Messrs. .... are in the house, Messrs. .... shall not be liable in respect of any such claim unless the same is made before or at the time of delivery.

6. The charges for rent are due and payable (weekly, monthly, quarterly, annually), and are exclusive of cost of removing, packing, or stowing away and unstowing. A charge for receiving or delivering will be made to Depos-

itors who may convey their own goods to or from the Depository.

7. The liability of Messrs. .... for loss or damage to any one article, suite, service, or package, is limited to £10, unless the value of such article, suite, service, or package has been previously declared in writing, and insurance paid or agreed to be paid thereon.

8. Messrs. .... shall not be liable for loss of or damage to any article contained in drawers, or in packages, or cases not packed and unpacked by their employees; nor for jewellery, plate, or other valuables, unless the same are specially given to their foreman under seal, and written notice shall have been received by Messrs. ...., ... days prior to the date of removal to the warehouse, nor in respect of any property not set forth and described in the warehouse inventory, a copy of which shall be sent by Messrs. .... to the Depositor.

9. Messrs. .... shall not under any circumstances be responsible or liable for any damage caused by moth, or for loss or damage caused by the act of God, civil commotion, invasion, war, or explosion, or for deficiency of articles of a perishable nature, or for damp, unless the latter is attributable to negligence on the part of Messrs. ....

10. Messrs. .... shall not be liable for loss or damage by fire, but will effect insurance upon any property warehoused upon receipt of written instructions to do so.

11. If the rent or other charges due to Messrs. .... in respect of any goods deposited with or held by them shall be two years in arrear, Messrs. .... shall, after sending by post to the Depositor of such goods, at his or her last known address, or to his or her agent, fourteen days' notice of their intention to sell such goods, or in the event of no abode or address of such Depositor being known to Messrs. ...., then after giving fourteen days' notice in a public newspaper, have full power to open and examine the whole of the property, and to sell the same or part of same by public auction, and to retain and apply the proceeds of the sale of the goods so sold (less the costs of the sale) in payment of or towards payment of all charges payable to Messrs. .... in respect of such goods or by the Depositors of such goods.

12. At least three clear days' notice must be given before the removal of any goods from the warehouse, except within three weeks of any of the usual quarter days, when not less than a week's notice is necessary.

It is essential that all quotations for warehousing should have these conditions printed on both the quotation and acceptance form, and should state "This quotation and the acceptance thereof is subject to the conditions at the foot hereof", and that the conditions should be duly signed by the person accepting same.

The contract must bear a sixpenny stamp.

The Furniture Warehousemen and Removers' Association have been justified by results in their efforts to establish the trade on a satisfactory basis, and this will be increasingly shown as the conditions are more widely adopted and adhered to.

Warehousing Hire-purchase Goods

There are still difficult points to be considered, and one of the most important and unsatisfactory is that of hire-purchase goods which have been warehoused. (See generally as to "Hire Purchase", Part III, Chapter VI.)

Whether the hire-purchase system is good or bad so far as the hirers are concerned need not be discussed, but there can be no doubt that it is not viewed with any friendly feeling by those engaged in the warehousing business.

Under the present system it is clear that the person supplying the goods does not part with his ownership, wherever the goods may be, until all his claims are satisfied.

It has been found in numerous cases that the hirer, either carelessly or with the intention of evading his responsibility, has removed the goods from one dwelling house to another without permission from or notice to the owner. Following this, the hirer fails to keep up his payments, and the owner, discovering the address, endeavours to obtain possession, but he is at once met by the landlord's prior claim for rent. But supposing the hirer, instead of removing to another dwelling house, has the goods removed to a warehouse, and the owner discovers this and claims the goods, the unfortunate warehouseman has no lien whatever, and is compelled to hand over the goods free of all charges. The warehouseman, of course, has his remedy against the hirer who gave the order for the removal and warehousing, but in almost every case the hirer has disappeared, or has no means, and the warehouseman has to bear the loss.

It was contended in one case that the warehouseman occupied the same position as a landlord, but this contention was overruled by the Divisional Court, as a hirer has no right to pledge the credit of the owner of the goods, and the warehouseman has no right of lien.

This is very unsatisfactory to the warehouseman, especially in the case of a removal where railway charges have been paid. It has been suggested that one of the conditions of a contract for removal and warehousing should be to the effect that the goods to be stored are not held under any hire-purchase agreement. But this would not protect the warehouseman, nor give him any right to a lien in the event of the declaration being incorrect.

Another suggestion is that warehousemen should endeavour to promote legislation in favour of the registration of all hire-purchase agreements. This

would be opposed by the warehouseman who had a furnishing business, and it is doubtful whether a Bill of the kind would pass.

Perhaps in time the difficulty may be surmounted by the Furniture Warehousemen and Removers' Association.

THE LAW RELATING TO WAREHOUSING

Warehousemen and wharfingers who undertake the custody of goods for remuneration are not, like carriers and innkeepers, insurers of the goods with which they are entrusted. The care, therefore, which they are required to take is the ordinary care which a reasonable man would take of his own goods. It is the duty of the owner to insure against fire, except where there is a special contract otherwise. A warehouseman, however, has an insurable interest in goods which he has in trust, and is entitled to recover the full value although he had only a lien for charges. He then holds the balance for the owners.

The contract of warehousing, which the law in the absence of any special agreement supposes, falls under the heading of bailments, of that class called "deposit", and in its general aspects has been treated in Part III, Chapter VI. It is, however, usual, for the protection of the warehouseman, to enter into a written contract, the terms of which we have already noticed (see p. 215).

Payment

There may be cases of gratuitous deposit of goods, where the depositee is liable only for his gross negligence Property may be received by a person not as a warehouse keeper but as ancillary to his ordinary business, to oblige a customer, as in the case of a bank. This is *prima facie* gratuitous. (See Part IV, Chapter III.) Usually in commercial practice warehousing is undertaken for remuneration. In order, however, that payment may be recovered there must have been a promise express or implied that the storekeeper shall be remunerated. It is implied by the receipt of goods in a warehouse or wharf at the direction of their owner that a reasonable remuneration shall be paid by him; and on the other hand, an obligation is imposed on the warehouseman to take reasonable care of the goods.

Liability of Warehousemen

The liability of a warehouseman commences when he receives the goods from the owner or the carrier, or, as it was said in one case, as soon as he applies his crane to raise the goods into his warehouse. He is from that moment responsible to the owner for their safety, and also to third parties for injury they may receive through the handling of the goods.

It is sometimes a very important question to settle when the warehouseman's liability begins and that of the owner ends, or, as we have seen elsewhere, when the liability of the carrier lessens into that of a warehouseman (see Chapter V of this Part). There must be an authorized delivery to the warehouseman, or to his servants or agents, in order to charge him, and a delivery at the proper time or by arrangement, unless from the ordinary course of dealing between the parties it has been the custom for a warehouseman to receive the goods from a carrier without special instructions.

While a warehouseman is required in the ordinary way to take the care which a careful and vigilant man would take, it would be unreasonable to charge him with a trust further than the nature of the thing put it in his power to perform, as Chief Justice Holt said in the leading case on bailments, *Coggs v. Bernard* (1704).

The storage of goods or chattels, such as securities, may, as we have seen in the case of bankers, be not the ordinary business, but a duty undertaken for the convenience of customers, and without payment directly made for the purpose. It may, under such circumstances, be a gratuitous storage, with the duty only to take care of a slighter character.

Where a warehouseman receives goods into a building, that building must be in a reasonably proper condition as far as he is able to judge, but he does not warrant its absolute safety. If a shed is blown down by a high wind, and the owner had no knowledge of any defect in its construction, he is not liable for loss happening to goods which he has received and placed there.

There is nothing to relieve a Government which undertakes the storage of explosives, for example, from the ordinary liability of warehousemen. Public bodies contracting with individuals for remuneration cannot escape on the ground that they are not liable for non-feasance, this rule of law not applying to such cases as where explosives were stored too near the water's edge and damaged —*Brabant v. King* (1895).

A warehouseman is liable not only for his own acts but for those of his employees, and also for the servants of sub-contractors. Where a warehouseman employed a master porter and, through

the failure of the tackle which he and his men were using, a barrel fell and injured a passer-by, the warehouseman was held liable in damages—*Randalson v. Murray* (1838).

A warehouseman is not liable, however, for the wilful fraud of a servant or for an act of his agent which is outside the scope of his authority or inconsistent with his duty. In the ordinary way, however, the onus is upon the warehouseman to disprove his liability for loss or damage to goods which he has received under his care.

The ordinary duty of a warehouseman is to store and take care of the goods, not to overhaul and examine them so as to preserve them from injury by moth or rust, unless specially requested. It may become the duty of a warehouseman to give notice to the owner when the goods are obviously suffering from want of attention. Goods liable to such damage or deterioration are usually stored under a special contract.

Special Contract

The ordinary terms which govern warehousing may always be varied by special contract. It is usual for owners of repositories to limit their liability by express terms. If a warehouseman has contracted to receive goods in a particular place for storage, and, without acquainting their owner with the fact, has stored them elsewhere, he is liable in the event of loss by fire, as if owner has insured them as being in a particular building and has been unable to recover from the insurance company because they were in some other building. Such damages have been held to be not too remote—*Lilley v. Doubleday* (1881)—on the ground that where a warehouseman elects to deal with property entrusted to him in a manner not authorized by the owner, he must take the risk upon himself if loss results in consequence.

By a special contract a warehouseman may be liable for consequential damage, but in the ordinary way he is not, as a carrier may be, liable for more than the actual value of the goods lost—*Anderson v. North-Eastern Railway* (1861).

"There is a great difference between a carrier and a warehouseman," as Chief Baron Pollock remarked. "Where a carrier is employed it is known, and must be assumed that the goods are going for some purpose, and so far it is notice which may render the carrier responsible for damages resulting from loss of the goods beyond their actual value; but the simply depositing a parcel at a warehouseman's till to-morrow cannot be notice which shall affect the warehouseman, in case of the loss of the parcel, beyond the actual value of the article".

Where it is agreed that the storage shall be at the owner's risk, and the storers are not to be liable for certain named acts or for any other causes whatever, they will be liable only in the case of wilful misconduct. For example, where cheese, stored at the owner's risk, was kept at too low a temperature, and the jury found there had been want of skill, as the act was not intentionally done, the storers were held not liable in damages—*Cordey v. Cardiff Pure Ice Company* (1903).

Forged Order

It is the duty of a warehouseman to deliver only to the owner or his order. He must therefore bear the loss if he delivers the goods on an order which has been forged. Where a dock company acted upon an order which had been forged, and delivered the goods to a person who had taken that order, they were held liable, even though the owner had neglected to apply to the person who had got the goods for some months after, and although he might by discovering the fraud have recovered from other persons.

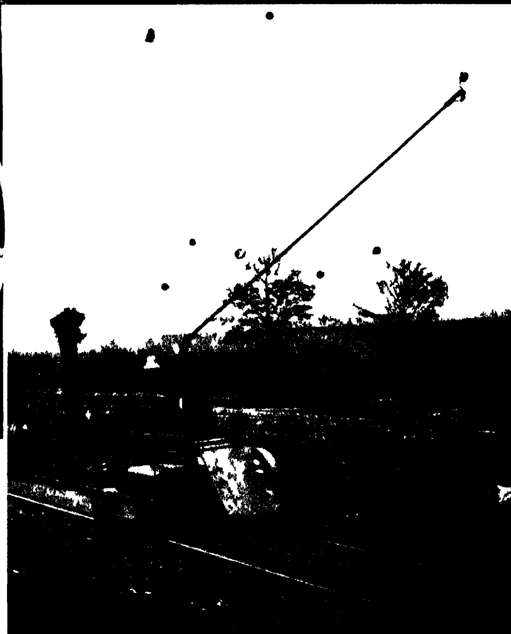
After a warehouseman has acknowledge the title of anyone to the goods he holds, he cannot contest it. He is bound to redeliver on demand if payment is tendered for his charges; otherwise he is guilty of conversion, even although his acknowledgment may have been due to fraud.

An innocent purchaser who had obtained an acknowledgment from the warehouseman, and who was refused delivery afterwards when it appeared that the sellers to him had been fraudulent, was entitled to damages for conversion of the goods to the extent of the market value of the goods at the time—*Henderson v. Williams* (1895). As Lord Halsbury remarked in that case: "It appears to me that quite apart from any contract which may be affirmed or disaffirmed afterwards. the question here is whether the true owner of the goods has so invested the person dealing with them with the indicia of property as that when an innocent person enters into a negotiation with the person to whom these things have been entrusted with the indicia of property, the true owner of the goods cannot afterwards complain that there was no authority to make such a bargain".

If, however, at the time the warehouseman received the goods in his custody he did not know of any other claim and another claim is subse quently put forward, he may interplead. He can avail himself of the title of such third person as a defence against the bailor only by showing he is defending on behalf of and by the authority of









ELECTRIC TRACTION ON CANALS

[illegible]

[illegible]

such third person—*Rogers v. Lambert* (1891). (See "Interpleader", Chapter XXVI of this Part.)

Where goods were claimed by a husband which had been deposited by a wife whom he had deserted, and an order was obtained by a London magistrate for the delivery of the goods to him, the warehouseman who delivered the goods under the order was held liable in damages to the wife, because of his negligence in not informing her that a claim had been made or summons issued until after the magistrate's order had been granted —*Ranson v. Platt* (1911).

Lien

By implication of law wharfingers, and probably warehousemen, have a general lien as well as a particular lien, that is, they have a lien for a general balance due to them upon goods which happen to be at the time in their custody, as well as a claim for the charges on particular goods. This rule, however, may be repudiated in the case of a wharfinger by local custom. The claim to lien is one which overrides other claims on the goods, but it may be waived in various ways: if the identity of the particular goods is lost and they become mixed with other goods; if the owner sells the goods and pays the charges up to date and gives notice to the warehouseman; or where there is a special custom for the payment of charges otherwise. In such cases there is a waiver of the right of lien. A wharfinger has no lien on goods where sent to his wharf in error, or if he received them under a special agreement.

After notice of sale by the bailor the bailee cannot claim against the buyer for a debt contracted since the notice of sale, although no delivery was made of the goods, notice amounting to the same thing.

See generally as to "Lien", Part III, Chapter XII.

Wharfingers

Wharfingers, who are keepers or owners of wharves and receive goods till shipped, or take delivery of goods arriving by ship, like warehousemen, must exercise ordinary diligence. The term "wharfinger", of course, includes dock companies, and authorities like the Port of London Authority. There must be a delivery to the wharf or to the agent or servants of the wharfinger, and the wharfinger in turn must deliver to someone with the authority of the owner. Like a warehouseman he cannot dispute the title of an owner he has acknowledged. In a case where a wharfinger had acknowledged that certain timber on his wharf was owned by the plaintiff, he could not afterwards dispute his title. Mr. Justice Bosanquet said that "if we were to hold otherwise we should throw doubts on the principle by which a large portion of the trade of London is regulated; namely, that if a wharfinger acknowledges the title of the person for whom he holds, he cannot afterwards dispute it; and it is not material whether the acknowledgment be oral or written" —*Gosling v. Birnie* (1831).

Distress

The goods of customers received into a warehouse or at a wharf are not liable to be taken in distress for rent due from the warehouseman or wharfinger.

Extra Liabilities

Warehousemen and wharfingers may agree to act as factors or agents for sale of the goods entrusted to them for custody, in which case they assume responsibilities above those of bailees of the goods, and become liable as agents and trustees for moneys received. (See "Principal and Agent", Part III, Chapter II.)

FORMS

FORM I.—DOCK WARRANT

327

PORT OF LONDON AUTHORITY

London Dock

Dock Lot, *4.* Rot^n^., *1911/9517.*

No., D 83889. *No. 1 Warehouse,*

Dated this *1st December, 1911.*

3d.
STAMP
HERE

WARRANT for *Ninety-six Slabs of Tin* imported in the *Vesta.* Master *Toaspern,* from *Hamburg.* Entered by *Port of London Authority* on the *28th November, 1911.* Deliverable to *Port of London Authority* or Assigns by endorsement hereon.

Rent commences on the *28th November, 1911,* and all other charges from the date hereof. *Landing* Rate charged.

Mark.	Numbers.		Landing Weight.						Mark.	Numbers.		Landing Weight.					
	Drafts.	Slabs.	Gross.			Tare.				Drafts.	Slabs.	Gross.			Tare.		
			Cwt.	Qr.	Lb.	Cwt.	Qr.	Lb.				Cwt.	Qr.	Lb.	Cwt.	Qr.	Lb.
P.U.S.	*31*	*10*	*10*	*0*	*7*												
	2	*10*	*10*	*0*	*9*												
Eastern Smelting	*3*	*10*	*10*	*0*	*14*												
Company, Ltd.,	*4*	*9*	*8*	*3*	*26*												
	5	*10*	*10*	*0*	*2*												
Penang.	*6*	*9*	*8*	*3*	*25*												
	7	*10*	*10*	*0*	*9*												
P.	*8*	*9*	*9*	*0*	*4*												
	9	*10*	*10*	*0*	*13*												
	10	*9*	*9*	*0*	*14*												
	10	*96*	*96*	*2*	*11*	*Net.*											

Ledger, *208.* Folio, *200.*

.... Clerk. .... Warrant Clerk.

FORM 2.—DECLARATION

PORT OF LONDON AUTHORITY

4

PORT RATES ON GOODS. FOREIGN—INWARDS

DEPOSIT ACCOUNT

Ship, *Conway.*
Reported *1st March, 1912.*
From *Lisbon.*
Place of Discharge, *Royal Albert Docks.*

} DEBIT ACCOUNT OF..

....

Name and Address of Firm or Person on whose account Rates are paid.	Particulars of Goods.	To be left blank for use of Port Authority.	Gross Weight.				Rate.	Amount of Rates.		
			Tons.	Cwt	Qr	Lb		£	s.	d.
	S.H.S. 100 Cases Sardines ...		*3*	*15*	*0*	*0*				
Computed by .... Entd in Day Bk by. .... „ Ledger No ...... Folio...... By .... Exd .. .. *Examiner.*	Date, *1st March*, 1912.						£			

FORM 3

268

ENTRY FOR WAREHOUSING

Port, *London.*
Dock or Station, *Royal Albert Docks.*
Importer's Name, ...

Collector's No. and Date.
1984.
1st March, 1912.

Ship's Name.	Date of Report.	Port or Place of Shipment of Goods.
Conway.	*29th February, 1912.*	*Lisbon.*

Marks and Nos.	No. of Packages.	Description of Goods in accordance with the Official Import List.	Quantity.	Value £.	Name of Place whence Goods consigned.
S.H.S.	*100*	*Cases Sardines*	*10 000 Tins*	*250*	*London.*

I enter the above Goods to be Warehoused, and declare the above particulars to be true.

Dated this *1st* day of *March*, 1912. { (Signed) ....
Importer or his Agent.

FORM 4

Ledger No., *92.* Folio. *142.*

I. WARRANT.—WET GOODS FOR HOME CONSUMPTION

Collector's No., *86.*

Date, *1st March, 1912.*

Port, *London.*
Station, *West India Dock.*
Number, *804.*

Month and Year, *29th Feb.*, 1912.

Ship and date of Importation, or Customs Rotation and Year, } *Port Kingston.* Bonder's Name, *Robinson.* *9 . 1. 1912.*

Number and description of Packages and Goods, } *One Puncheon.* Place and Country of Destination, } *London.*

Landing Account.									Re-examination.							
Register and Folio.	Mark.	Nos.	Content.	Ullage.	Hydrometer Strength.	Obscuration.	Actual Strength.	Proof Gallons.	Bung.	Wet.	Ullage.	Hydrometer Strength	Actual Strength.	Proof Gallons.	Deficiencies. Alld.	Deficiencies. Chrgd.
13/46 G.S., 14/12/11	*S.R.F.*	*11*	*110*	*109·0*	*o. 33·0*	*0·4*	*33·4*	*145·4*	*34·0*	*34·8*	*108·0*	*33·1*	*33·5*	*144·1*	*1·3*	—

.... Officer.
1st March, 1912, Date.

Duty, *One hundred and eight* pounds *thirteen* shillings *six* pence.

.... { Name and Address of Firm paying Duty. Duty, *£108 : 13 : 6*

....

....
Collector of Customs and Excise.

II. WAREHOUSEKEEPER'S ORDER

To the Warehousekeeper at *West India Dock.*

You may deliver the undermentioned goods, provided that they are actually removed from the warehouse before any addition has been made to the duty chargeable.

Station Number, *120.*

Month and Year, *1st March,* 1912.

Ship and date of Importation, or Customs Rotation and Year, } *Port Kingston. 1911/4184.* Bonder's Name, *Robinson.*

Number and Description of Packages and Goods in words.	Import. Marks and Nos.		Date of Delivery, to be filled in by the Warehousekeeper.
One Puncheon Rum	*S.R.F.*	*11*	

.... Name of Firm paying Duty.

....
Officer of Customs and Excise.

III. MEMORANDUM TO BE RETAINED BY COLLECTOR

Note.—If the Duty is paid on Gross Payment Receipt this Memo. is not required, and should be detached.

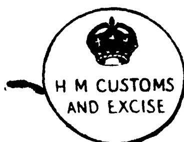
Station, *West India Dock.*

Paid by .... £ s. d. *108 : 13 : 6*

Description of Goods, *Rum.*

Collector's No. and Date.
86.
1st March, 1912.

No. 495, Warehousing Code, pars. 496–505.



FORM 5

No. 64 (Sale).

* Erase the word that does not apply

SHIPPING BILL FOR DRY* / WET GOODS AS MERCHANDISE

UNDER BOND

Port or Collection District, *London.*

Station, *Bottling Floor, London Dock.*

Station No. ....

Month and Year, ... 191..

Export Ship, *Golconda.* Master, *Brown.* For *Bombay.*

Entered Outwards ....

Bond given *29th February, 1912.*

Station, *Royal Albert Docks.*

Lighterman, ...

Conveyance, *Van.*

Carman, ...

.... Exporters or Agents.

.... Address.

Shipping Marks and Numbers, and Final Destination	Number of Packages.	Description of Packages.	Description of Goods	Quantity. Wet Goods Gallons, &c	Dry Goods Cwt.	Qr.	Lb.	Country whence Goods were consigned when imported.	Rate of Drawback (if any) claimed.	Value.
			N.B.—These goods must be produced to the Officer of Customs and Excise at time of Shipment							
A.H.C. 4										
Bombay	*Six*	*Cases N.E.*	*Red Wine (Port) 42, Bottled in Bond. Each 12 bottles.*	*12 gall.*		—	—	*Portugal* ...	—	*£9*
TOTAL										

.... Officer.

1st March, 1912, Date.

We declare that the quantity, description, and value of the goods entered in this Shipping Bill are correctly stated.* .... *further declare that the goods are of British manufacture, and claim Drawback on* ....

* Strike out words in italics if not required.

.... Exporter or Agent.

Port, *London.*

Date, *1st March,* 1912.

Received the above-mentioned packages on board this Ship. .... Master or Mate.

.... Countersignature of Officer of Customs and Excise.

Particulars of Examination and Certificate of Shipment to be inserted here, *All shipped in good condition.*

.... Export Officer.

N.B.—The Lightermen or Carmen are particularly required to give immediate notice to the Export Officer if any of the above-mentioned Goods be shut out of the Vessel, and on no account to take them to any other Ship than the one above-named without his permission.

Exportation Code, paragraphs 40 and 134.

FORM 6

Excise—No. 528.

REQUEST NOTE, AND PERMIT OR CERTIFICATE

I REQUEST a Permit to remove from *the Brandy Vault, London Dock,* to .... County of *London*, the* *seven hogsheads of Foreign* Spirits specified below, to be sent out at *3* o'clock in the *after* noon, and conveyed by ....

Dated *1st March*, 191*2*. Signed by ....

Casks or Cases.	Spirits.			Casks or Cases.	Spirits.		
Marks and Numbers.	Liquid Gallons.	Strength.	Proof Gallons.	Marks and Numbers.	Liquid Gallons.	Strength.	Proof Gallons.
		u.					
A.B. *1*	*57·1*	*1·1*	*57·6*	*Obs. each 2·1.*			
2	*57·1*	*1·1*	*57·6*				
3	*57·1*	*1·1*	*57·6*				
4	*57·1*	*1·1*	*57·6*				
5	*57·1*	*1·1*	*57·6*				
6	*57·1*	*1·1*	*57·6*				
7	*57·1*	*1·1*	*57·6*				

The proper Duties having been paid, or secured by Bond, the above-named Spirits may be delivered. Time allowed ....

Dated *1st March*, 191*2*,
at *3* in the *after* noon. .... Officer.

* The number and description of the packages and denomination of the Spirits should be entered here. If racked or blended, &c., they should be so described.

Customs No. 520. { Importation Code, paragraph 759.
Accounts Code, paragraphs 222–9.
Warehousing Code, paragraph 223.

FORM 7.—EXPORT CHARGE

N 15 (6) LONDON DOCK,
EXPORT DEPT.

Messrs. ....

Dr. TO THE PORT OF LONDON AUTHORITY

N.B.—In the absence of a Deposit Account the Amount of this bill to be paid to one of the Port Authority's Collectors, at 109 Leadenhall Street, E.C., at the Docks, or at the Town Warehouses. Only receipts on the Port Authority's adhesive forms will be recognized. Cheques to be crossed London County and Westminster Bank, Limited. Firms will find their business materially expedited if they will exhibit the bill, as soon as paid, at the Department whence it was issued.

N.B.—*Goods not Shipped* within *Three Weeks* will be subject to the CHARGE OF RENT.

		£	s.	d.
20th Jan., 191*2*.	Per *Arzona.* (AW) *1/12.* Ledger. *15.* Folio. *452.*			
	12 Bales Twine—			
	Wharfage and Porterage, *15 cwt. at 6s. 3d. ton* ...	*0*	*4*	*8*
	Measuring, *3 at 1d. ea.* ...	*0*	*0*	*3*
Exd.	Port Marking, *Lisbon, 1d. ea.* ...	*0*	*1*	*0*
Entd.	.... pounds, *five* shillings, and *eleven* pence. £	*0*	*5*	*11*

NOTICE.—AQUAFORTIS, VITRIOL, ACIDS, LUCIFER MATCHES or other Merchandise of a Combustible or Dangerous nature sent to the Docks for shipment or deposit without the description being distinctly marked on the outside of each package containing the same will subject the senders to a penalty of £20.

FORM 8.—IMPORT CHARGE.

N 1 (13) 6754

GENERAL OFFICE,
LONDON DOCK.

Messrs. ....

Dr. TO THE PORT OF LONDON AUTHORITY

N.B.—In the absence of a Deposit Account the Amount of this bill to be paid to one of the Port Authority's Collectors, at 109 Leadenhall Street, E.C., at the Docks, or at the Town Warehouses. Only receipts on the Port Authority's adhesive forms will be recognized. Cheques to be crossed London County and Westminster Bank, Limited. Firms will find their business materially expedited if they will exhibit this bill, as soon as paid, at the Department whence it was issued.

1912.	Ex *Sunbeam*. A Rotation No., *11/1984*. Ledger, *297*. Folio, *84*.	£	s.	d.
1st March.	*330 Cases Tinned Apricots at 4s. 6d. ton. 120 cwt.*	*1*	*3*	*0*
	Landing, Housing, and Delivery, with 2 weeks' free rent.			
	One pound, *three* shillings, and .... pence.			
Exd				
Entd				

PART VI

SHIPPING

INTRODUCTION

THE SHIPPING INDUSTRY

By the Right Hon. LORD NUNBURNHOLME

(Of Messrs. Thomas Wilson, Sons, & Co., Ltd.)

The shipping industry has grown considerably year after year, and it is pleasing to note that Great Britain is keeping her lead as the greatest carrier of goods and passengers across the high seas, both to and from all countries. This in itself is a sure proof that freedom of trade has been a satisfactory policy from the point of view of the shipping industry.

The expansion of the shipping of the United Kingdom in recent years especially has been enormous. Record after record has been beaten. In the year 1912, according to Lloyd's register issued 1 July, the total number of steamships and sailing vessels belonging to Great Britain was 11,442, having an aggregate tonnage of 19,418,824. The next in order were the United States of America, with 3466 vessels and 5,158,278 tons; Germany, 2199 vessels and 4,466,880 tons; Norway, 2070 vessels and 2,154,331 tons; and France, 1478 vessels and 1,976,812 tons. The aggregate for the whole world was 22,473 steamers having a gross tonnage of 38,781,572, and 7614 sailing vessels having a net tonnage of 4,365,582—or, together, 30,087 vessels and 43,147,154 tons. It will be seen that the total British tonnage is nearly as much as that of the rest of the world put together. According, however, to a most careful estimate of the deadweight carrying capacity of our merchant fleet, and taking into account the up-to-dateness of the great bulk of the British tonnage, the British proportion is quite 50 per cent of that of the whole world. In other words, for every 1000 tons the rest of the world put together can muster, Great Britain can show another 1000 tons. And, writing of the up-to-dateness of the British tonnage, that point cannot be over-emphasized; probably it is because we are the greatest shipbuilders the world has ever seen, and no less because of the enterprise of our shipowners. There have been times when it has been thought that our forward policy in building was overreaching the mark and detrimentally affecting the shipping industry. Two or three years ago, when

owners were still passing through a period of depression, with freights low and many vessels not making working expenses, it was felt that it was impossible for the glut of tonnage built, and building, to find employment. Yet the British yards have kept on building, until last year (and I believe also this year) the greatest volume of merchant tonnage ever turned out in any one year has been added to the mercantile marine. In 1911 the total output of the shipping tonnage in the world, including warships, established a fresh record, the excess over the previous record (1906) being 24 vessels and 170,987 tons. The following table shows the output (vessels launched) of merchant shipping during 1911, and does not take into account vessels under 100 tons:—

	Number of Ships.	Board of Trade tons.
Great Britain and Ireland	1416	1,851,7[illegible]8
British Colonies	150	22,063
Foreign countries	1487	1,002,962
	3053	2,876,823

Here again the British supremacy is manifested in no uncertain manner. Not only this, but in July, 1912, there were under construction in the United Kingdom—that is, vessels actually begun—excluding warships, 529 vessels of 1,774,040 tons gross. These figures, which are taken from returns compiled by Lloyd's Register of Shipping, show an increase of about 87,000 tons over that in hand at the end of March quarter, and are 298,000 tons more than the tonnage building at the end of June, 1911.

It is interesting to note that of these 105 vessels of 346,433 tons were building in the United Kingdom for foreign and colonial account. The tonnage building by foreign and colonial competitors is returned at 1,029,257 tons—an increase of no less than 309,000 tons over June, 1911. The German yards had 388,000 tons in hand, the United States shipbuilders 205,000 tons, France 129,000 tons, Holland nearly 100,000 tons, Austria 53,000 tons, and Japan 45,000 tons. All this shows the vitality which the shipbuilding industry possesses.

Hand in hand with the growth of shipbuilding there have been marked advances in many directions—in the size and construction of ships, in equipment and accommodation, in speed and mechanical propulsion. Even the conduct of the business has also undergone a change. It has now become a custom for regular lines of steamers to cater largely for the traffic which used to be carried solely by "tramp" boats; although by the very nature of the trade or the goods or the material, the "tramp" steamer has a very wide field open to it in carrying from place to place the products of all parts of the globe. It is of no small importance that new "tramp" steamers have had their carrying power increased, owing to the progressive policy of Lloyd's Register of Shipping, and to the scientific methods also incorporated in the rules of the British Corporation Classifications. On the other hand, shipowners nowadays, under recent Acts of Parliament, have had many heavy burdens put on their trade. The law now enacts that certain specified scales of accommodation and food for the crew must be provided on every British ship. Moreover, the law has brought them within the province of certain

compensation and insurance Acts; their legal liabilities are now much heavier than they have ever been before in respect to accidents, the bane of the shipping industry, in which are included both the ship's crew and the workmen employed in loading and discharging.

In recent years the speed of the fast mail boats has been increased all round, as has also the luxury of the accommodation provided for passengers. It is difficult to say where the extravagant competition in this direction between the great lines is likely to end. At the present moment there is a decided feeling that too much attention has been given to extreme luxury for the rich passenger and not sufficient to life-saving appliances at sea. Since the disaster to the unfortunate *Titanic*, however, all the great steamship lines have arranged to carry ample boat accommodation for every person aboard their vessels.

Great developments have taken place in turbine engines, and the latest types are run at full speed and geared down so as to supply the power at slow and economical revolutions to the propeller of the ship. This is likely to give an impetus to the installation of turbines in cargo vessels as well as fast passenger ships, but there are still many owners who find it more satisfactory to continue using quadruple- or triple-expansion engines or a combination of triple-expansion engines and low-pressure turbines with or without superheated steam. In many instances these have proved to be more economical for long voyages than an installation of turbines only. In the view of Sir Charles Parsons, K.C.B., the problem of applying the steam turbine to vessels of moderate and slow speeds has been satisfactorily solved by this association of mechanical gearing with high-speed turbines as compared with triple-expansion engines as follows: Increased economy in coal and oil consumption; absence of racing in rough weather; reduced weight of machinery; increased deadweight cargo due to increased economy in coal consumption and reduced weight of engines. With regard to turbines, he points out that a consumption of saturated steam of about 12 to 13 lb. per s.h.p. for the main engine can be obtained, which is equivalent to about 11 to 12 lb. per i.h.p. for reciprocating engines, assuming a ratio of s.h.p. to i.h.p. of 90 to 92 per cent. Further advantages, it is said, can be secured by the adoption of superheated steam and by burning oil fuel in the boilers.

The feature, however, of the past year has been the increased attention given to the application of the internal-combustion engine to marine purposes. At the present time several companies at home and abroad are experimenting with new steamers driven by oil engines. This has come about by the invention of the Diesel engine. The first experimental Diesel engine was constructed by Dr. Diesel in 1893, but it was not until 1897 that the first reliable Diesel engine, a vertical of 18 h.p., was put into working order by the inventor at the Augsburg works "after four years of difficult and laborious experimental work, and, in the opinion of experts, gave better heat utility than any known kind of heat engine" (Dr. Rudolf Diesel before the Institute of Mechanical Engineers, 15 March, 1912). Since that time experience has produced knowledge and improvements in construction and manufacture; and in the earlier part

of this year the *Selandia*, a large steamer belonging to the East Asiatic Company of Copenhagen, driven by the Diesel oil engine, visited the Thames prior to proceeding on her maiden voyage to the East. A sister ship, the *Jutlandia*, has recently been launched on the Clyde. It is reported that at least a dozen other large vessels are under construction on the same principle, and that British engineers are arranging for the manufacture of machinery of the Diesel type. Dr. Diesel gives a list of 300 vessels propelled by the Diesel engines built or in course of construction up to the close of last year. For the Diesel engine it is claimed that from actual results it has been found that the fuel consumption is only about one-fourth the weight of coal which would be used in a steamship of equal power. Dr. Diesel maintains that his oil engine is of special importance to Great Britain, his contention being that enormous savings can be effected in coal, and the exhaustion of the coalfields delayed by transforming coal into coke and tar oils by distillation, and using the latter after the valuable chemical products have been extracted in a much more economical way by the Diesel engine than is the case by burning coal direct on the grate of a steam boiler; and that the oils, both mineral and vegetable, found in our colonies should be utilized. Nevertheless, great as are the developments expected in the near future, and great as may be the possibilities which lie before this invention, one cannot see how a country such as Britain, the home of the coal industry, can afford to give up using that fuel in favour of one which, now at any rate, is very much more costly.

CHAPTER I

SHIPBUILDING

Introductory—Methods of Contracting—Construction—The Launch—Tests and Trials—Training of the Shipbuilder.

INTRODUCTORY

The art of shipbuilding is practised in all countries where the natural resources render it profitable to manufacture steel, and in Britain alone a year's shipbuilding may exceed two millions gross tonnage, and have a value amounting to £40,000,000.

The principal shipbuilding centres in this country are the Clyde, north-east coast of England, Belfast, Barrow-in-Furness, and the Mersey. The chief shipbuilding firms, besides having yards for the construction and equipment of the hulls of vessels, have engineering works for providing the propulsive machinery; some firms own, besides these, steel works, armour and ordnance factories and coal mines, but these ramifications have generally been the outcome of a combination of several separate interests into one firm. Many shipbuilders, however, construct the hulls of vessels only, and the machinery is made and supplied by an entirely separate firm: many engineering shops exist for the manufacture of marine engines and boilers for ships built by other firms. Sometimes the contract for the equipped ship, ready for service, is placed with the shipbuilder and sometimes with the engineer; but the former is the more common practice, as the proportion of cost which goes to the former is the greater. Occasionally two independent contracts are made, but this course is not one to be recommended.

To conduct a modern shipyard of the most modest dimensions there is required a capital of ten thousand pounds, and the capital value of one of the largest undertakings is not far short of seven millions sterling, while most of the others have between ten thousand and one million pounds capital.

A few firms will undertake contracts for all kinds of ships and build the various types, from battleships to barges, but the more usual practice is for each yard to be associated with a certain class of ship, which class may include one or more of the many types into which ships are divided.

The primary division is into warships and merchant ships, and each of these is again subdivided into types suitable for certain duties. Of warships there are battleships, cruisers of the first, second, and third classes, torpedo-boat destroyers, torpedo boats, submarines, scouts, gunboats, and special-service vessels. These special-service vessels are store ships, colliers, hospital and troopships, repair and mine-laying ships, besides training and instructional vessels.

Of merchantmen there are fast and intermediate passenger vessels, generally "liners", ocean cargo tramps, oil carriers, channel steamers, dredgers, river and paddle steamers, coasters, barges, shallow-draught vessels, pleasure yachts, tenders, fishing trawlers, and launches.

For the building of warships there are, in this country, the four Government dockyards: Chatham, Portsmouth, Devonport, and Pembroke, but the number of ships of war required is far in excess of the possible output of these, hampered as they are with repair and overhaul work. There is consequently a large amount of warship tonnage ordered annually from the private shipbuilders of the country, and several of these yards find the Government their best customer.

The various types of war and merchant ships have been evolved by experience as the most suitable for the services they have to perform. Sufficient information has been accumulated by

the steel shipbuilder of his own experiences and those of his predecessors to make the practice of shipbuilding take rank almost as an exact science. It is true that vessels sometimes do not fulfil, when built, all the expectations promised for them by their builders; but these occurrences are very unusual when the designers and constructors are of good standing, and these failures are generally associated with the names of firms who either do not record data of past experience accurately, or do not make a scientific use of such, if they have it.

METHODS OF CONTRACTING

It must not be forgotten that shipbuilding is a commercial undertaking, and that the building of ships is undertaken for the purpose of making a profit and so earning a dividend on the capital invested, and this after paying out money for all that goes into the making of the ship and her equipment, the labour and staff expenses on same, upkeep of buildings and machinery, rent and taxes. In the competition which takes place between rival shipbuilders to secure orders, and in the desire to keep old trade connections, this important commercial consideration sometimes eclipses the technical view as to the possibility of completely fulfilling the onerous requirements occasionally put forward.

In the building of the larger liners a practice has recently developed of placing the order with a first-class firm of builders and paying to them their legitimate costs plus a profit of ten or less per cent. For the purpose of arriving at the cost, books are kept, and these are audited monthly by representatives of the shipowner, who is thus able to know what is being spent on the construction of his vessel from time to time. This custom has advantages and disadvantages. When the contract is honourably carried out it is an ideal system, absolutely fair to the shipbuilder and shipowner. The former gets a fair return for his labour and the latter pays the actual cost plus a known percentage of profit. The system is liable to abuse, however. Instances have been known where the cost of a vessel was inordinately increased in order that the money received as percentage profit should be large. The labour expended on two classes of material is much the same, but by putting the dearer material into the construction, where the cheaper would have been equally serviceable, the shipbuilder can receive a percentage profit for simply passing the material through his hands. There is likewise no competition involved, such as there is when tenders are taken; also the shipowner does not know in any exact way how much money the ship will cost him until it is finished. He is relieving the shipbuilder of all risks, both of rise and fall in material and labour, that may take place while the contract is in progress.

Payments for ships are sometimes made in a lump sum on the completion of the contract, but more frequently payments by instalments are made. These are generally arranged to represent the value of various stages in the work of construction. In contracts involving large sums of money, as many as ten instalments are required to make up the contract price. In cases where the cost is less, five instalments are deemed adequate. In this latter case common periods for paying instalments are as follows: (1) When the keel is laid, the boiler plates are in the contractors' premises, and the patterns for machinery castings are in the foundry; (2) when the vessel is framed and the beams erected, boiler shell built, engine castings machined, and other machinery work in a correspondingly advanced condition; (3) when the vessel is plated, the boiler complete except mountings, the principal parts of machinery erected; (4) when the vessel is launched and the boilers and main engines completed and placed on board; (5) when the ship has been proved capable of fulfilling the contract requirements of speed, stability, dead-weight carrying on stated draughts, and all other conditions of completion enumerated in said contract and specification, and the vessel is taken over by the owners or their representative. It is usual that the contractor guarantees the workmanship and material for a period of six months or twelve months, as may be arranged, and a proportion of the last instalment is held over until the completion of such period of guarantee.

CONSTRUCTION

A ship is analogous to a hotel or warehouse, except that it is locomotive on the water, and must, to be of service, be so constructed as to remain always relatively upright in all weathers it may encounter. According to the extent and quality of accommodation required for passengers and cargo, the speed and radius of action at that speed, so must be determined the dimensions, and,

accordingly, the cost of the ship. The problem, therefore, of designing and building a ship is a much more complicated one than is set before the architect or house builder. The conditions to be fulfilled are briefly as follows:—

1. The ship must float.
2. It must float upright, light or laden.
3. It must carry a certain cargo on a stated draught.
4. The machinery must be capable of propelling it constantly at a stated speed.
5. Accommodation for fuel, water, and other consumable stores must be found.
6. The structure must be strong enough to withstand the stresses set up when light or laden, in a sea way, or in dry dock.
7. Accommodation for cargo and passengers, and facilities for working the former have to be provided.
8. The vessel must be capable of manœuvring and steering.

These briefly summarize the essential requirements of a ship, but besides these there must be provided adequate life-saving appliances, means for mooring the ship in harbour, provision for making small repairs at sea, stowage for all movable fittings such as anchors, cables, accommodation ladders, and fittings only sometimes in use. Spars and sails are sometimes fitted to the masts, and are used either for steadying the ship when steaming in a sea way, or for sailing her should the propelling machinery entirely break down. With twin-screw, or triple-screw machinery this latter contingency is nowadays not very probable. Awnings are also supplied to protect the passengers and crew from tropical suns, or from rains. In warships the magazines and shell rooms take the place of the cargo holds of the merchant ships.

The shipbuilder has a serious problem to solve, namely, to erect the ship piece by piece, and many individual pieces are of considerable weight, and when these are all joined into one whole, known as a ship, he has the difficult and responsible operation of moving the mass, sometimes amounting to fifteen thousands of tons, from the land into the water. This operation of launching, which is actually performed in about sixty seconds of time, is seldom attended with any accident. It says much for the arrangements made by the shipwright that this should be so.

These are the outstanding features present to the mind of the shipbuilder when he undertakes the duty of building a ship Much, however, has to be done before the ship is ready to go on service, or even before she is ready for launching.

The Designer and the Artisan

The practice of shipbuilding combines the work of the designer with that of the artisan. Without one of these the other would be incapable of producing the article required. The procedure in making the general design of a ship is varied. Primarily, the requirements must be stated by the shipowner, or in the case of a warship by some authority on strategical and tactical requirements. Taking the former of these, the shipowner must state what he wishes the ship to do. He has generally in his mind the using of her for some certain trade. From his knowledge of the harbours which she must use he is often constrained to limit the draught of the vessel, or the length if the wharves are in any way confined. If the vessel has to dry dock at a foreign station, the size of the available dry dock is sometimes the limiting factor. The locks on a canal control at other times the size. It may be that a certain amount of cargo only can be collected in a certain interval of time or that the passenger requirements are known only within certain limits. The shipowner has therefore to make up his mind as to what he wants carried, what speed he wants it carried at, and to state any limiting conditions that he knows of. If the shipowner does not wish to take any responsibility for the successful designing of the ship he should limit his stipulations to such simple statements as these. Where he proceeds to lay down further requirements in the nature of dimensions or items of general design he is only taking a responsibility on his own shoulders which should rightly be borne by the technical man. Some shipowners who have been in the business for a long time and have much experience of certain trades are able to indicate in what way the design of a previous ship can be improved to suit their requirements. Many shipowners modify specifications and plans of existing ships which they have, and issue these to shipbuilding firms and receive quotations based on these plans and specifications. Where the shipowner has protected himself in the specification or contract, clearly and definitely, in regard to speed, stability, strength, and other necessary particulars, this method of conducting affairs is all right up to that point, but there are few shipowners who are able to issue specifications of this nature without involving themselves in liability for some risks. A second method of procedure is to state the requirements of the trade and ask the shipbuilders to prepare and submit plans, specifications, and prices. The shipowner is then faced with the problem of analysing the different proposals set before him and making a judicious selection.

It is not possible for a shipowner to be a shipbuilder also, and in the second case he is not more likely to be able to discriminate than in the first.

Inspection

The third procedure is for the shipowner to employ permanently a trained naval architect to prepare his designs and to look after his ships while building. This practice is followed by several of the large lines, but very many owners consider a retired sea-going engineer is competent to fulfil the duties of a trained naval architect and shipbuilder. The alternative to the foregoing is to employ a firm of consulting naval architects and marine engineers, and tell them what is required. They then prepare plans, specifications, and draft contracts to the satisfaction of the shipowner, advising and consulting with him on all particulars necessary. Thereafter the shipowner may issue these plans and specifications to various shipbuilders for them to tender on. By this means the shipowner can see at a glance which firm is the cheapest, because he knows that they are all tendering on the same basis, and he is in a position to place his contract right away, as he knows the ship will be built exactly as he wishes it. When this last procedure is followed it is usual for the naval architect and consulting engineer to have submitted to him for approval the drawing of every detail before it is issued to the yard or the engine shop to be worked from. This is necessary in order to ensure that the details are in accordance with the letter and spirit of the specification and design. In addition he has permanent inspection made of all workmanship and material under the contract. In the former cases, where the shipowner has not employed a naval architect and consulting engineer, he may avail himself of the services of one of the societies which surveys ships, such as Lloyd's Register of British and Foreign Shipping, the British Corporation for the Survey of Ships, Bureau Veritas, Germanischer Lloyd, Norwegian Lloyd, or other Continental and American societies. In this country the first two almost monopolize such work delegated to societies, and in the order named. These societies will, for a fee, look after the shipowners' interests in so far as the main structural strength of the ship and her main equipment are concerned, but they are in no way interested in the following: economy of propulsion, stability in various conditions of lading, cargo facilities, and many other essentials. Their chief duties are to ensure that the main strength scantlings of the ship are adequate, and by occasional visits of inspection assure themselves that the workmanship is good.

In so far as their inspections go, these societies are of great value in assisting a shipowner to have a vessel built. It is, however, no part of their business to design ships, nor is it any part of their duty, as it is that of the naval architect and consulting engineer, to see that the shipbuilders have in all respects made the ship conform to contract, and to test and try her to establish that the same has been done.[1]

The Naval Architect

It may here be remarked that where the shipowner places the design of the ship in the hands of a naval architect, it is very desirable that he should satisfy himself as to competence in the same way as he would with his legal adviser, because an incompetent naval architect is as dangerous as an incompetent lawyer. The competency of such an adviser, however, can be readily gauged from the success or otherwise of the ships which have passed through his hands. The owners of these ships are always willing to inform fellow shipowners regarding him.

The fees charged by naval architects are generally a percentage on the contract price, as in the case of a house architect. The percentage varies inversely as the price of the contract, and for small ships may be 5 per cent, while for very large ones it may be 1 per cent. In duplicate ships where only one design is made, the charge is a matter of arrangement.

The Design

The process of making a design is as follows. The owner tells the designer the requirements the vessel is to fulfil. The naval architect selects the length, breadth, depth, and draught suitable to the type, basing his selection upon past successful vessels. The ratio between length and depth has a potent effect in securing the necessary strength of the structure as a whole. The ratios between breadth, depth, and draught largely influence the stability which the vessel will have, and suitable factors for these ratios have to be selected. Further, the ratio of the speed to the square root of the length of the vessel tells whether the speed problem is a difficult one or otherwise, and influences the naval architect in selecting the length dimensions where he has any option. Generally

[1] In passenger steamers, the Board of Trade inspectors examine the strength of the hull, boilers, and shafting, the life-saving appliances, and other particulars required by the various Merchant Shipping Acts. This department also assigns freeboard or delegates the doing so to one of the registration societies beforementioned, and one or other checks the position of the Plimsoll mark on the ship's side before it is cut in.

speaking, the longer the ship the easier she is to drive. For a given displacement, where $\frac{V}{\sqrt{L}}$ is ·9 or less, a broad fine ship will be more easily propelled than a narrow full one. In this kind of ship the water planes at the fore end would be bounded by hollow lines. Where $\frac{V}{\sqrt{L}}$ is between ·9 and 1·1 a straight-waterline ship is better; and where $\frac{V}{\sqrt{L}}$ is above 1·1, it is advisable to diminish the beam and fill the ends of the vessel to provide displacement to carry the weights. Definite figures have been given for gradations of $\frac{V}{\sqrt{L}}$, but actually the evolution of form and the range of speed ratios would be gradual. The selection of dimensions and form giving an easily propelled ship pays the shipbuilder and the shipowner. It is no more costly to build an easily propelled ship than the reverse, and in the former case the contractor has not to provide such powerful machinery to obtain the contract speed. It pays the owner, in that, during the life of the vessel, the fuel bill is lower.

Having determined on the dimensions of the ship tentatively, and the general character of the form suitable for the required speed, a process of trial and error is entered upon to estimate whether the weights can be carried. A rough design is prepared showing the accommodation, deck houses, and other erections which have an influence on the weight. From the length, breadth, and draught loaded and a block coefficient the displacement of the ship in the loaded condition is directly calculated. The block coefficient used is selected as suitable for the speed-length ratio where it is possible so to do. From the known weights of past ships of the same character, and with due regard to any differences in upper structures, the weight of hull can be determined by direct proportioning from the dimensions. The weight of hull is made up of three main items, namely, steel, wood, and outfit. From the dimensions chosen and displacement, and a knowledge of ships' forms, an estimate is made of the horse-power required to propel her at the speed chosen. The formula $\frac{D^{\frac{2}{3}}V^3}{C_A} = \text{i.h.p.}$ is one commonly used for approximate determinations of horse-power, where D is the displacement in tons, V is the required speed in knots, and C_A is known as an Admiralty coefficient. The selection of the coefficient to be used is dependent on the speed-length ratio and the form. It is generally selected from the analysis of speed trials of previous ships or models. Where reciprocating engines are to be used the power determined is indicated horse-power in the cylinders, where turbine engines are used it is shaft horse-power at the propeller shafting, and with oil engines it is brake horse-power at the shafting. These can be easily correlated. A more accurate investigation of horse-power necessary to propel the vessel at the required speed is entered upon at a later stage in the design. From the horse-power approximately estimated in this fashion an estimate can be made of the weight of machinery necessary to give the power required, and from the length of distance to be steamed the necessary weight of fuel can be determined. The weights are now summed up, and the displacement of the ship at the load draught should be equal to the weights of the following: steel, wood, outfit, engines, boilers, fuel, water, stores, cargo, passengers and their baggage, crew and their effects, margin. If it is found that the displacement is equal to the weights to be carried, the dimensions can be taken as fixed. If this is not the case, then it is necessary to make further trials until these agree. A margin of about 1 per cent on the structural weights should be allowed.

The form of a ship is now drawn out in sheer, half-breadth, and body views, the whole constituting the sheer draught or lines plan. Some consideration has been given to the trim of the ship, light and loaded, in designing these lines, and also in making the approximate arrangement plan. These trims are now more accurately calculated, and the arrangement plans may be somewhat modified so that there will not be an excessive trim by the stern in any reasonable condition of lading, and never a trim by the head. A slight movement on the plans of the contents of the engine and boiler rooms with the fuel which is adjoining is generally sufficient to regulate the trim one way or another. Trims being thus satisfactorily fixed, the general-arrangement plan of the ship is drawn out with care. This general-arrangement plan consists of a profile showing the ship cut through the longitudinal middle line and the internals exposed, and a plan of each deck with all the fittings shown on. A structural midship section, indicating the size and thickness of all the principal scantlings in the ship, is also made, and a general-arrangement plan of the machinery

Sufficient importance is not generally attached to the design of the form of the ship, but numerous instances are known to the writer where immense savings have been obtained by paying adequate attention to it. In one instance a vessel was designed repeating a former ship in dimensions and several other particulars excepting form, and the new vessel obtained the same speed for 30 per

cent less power. In another instance, where owners desired to repeat a previous vessel, it was possible by amending the form so to diminish the beam and yet obtain the same stability. On account of the reduced beam and the good speed form it was only necessary to put into the vessel three-fourths of the boiler power which her predecessor carried. This vessel did all the duty of the previous one at a diminished first cost on account of the smaller beam and less powerful machinery, and her coal bill was more than £10,000 per annum less.

The most important department in a shipyard is the drawing office, and of it the designing section is the head centre The original design for the ship is either made here or passed through it to the drawing office proper, and all estimates of costs, weights, and power are made in the designing department.

The Building

The process of building the ship starts from receipt of the general-arrangement plan, lines plan, structural midship section, specification, and contract. From these sufficient information is obtained to allow the chief draughtsman to instruct his staff to proceed with the detailed "yard" plans of different portions of the structure. The keel plan is first prepared, and contemporaneously the stem, stern post, and rudder castings or forgings are drawn out. On these being approved, the material is at once ordered. The body plan of the ship is drawn down first on the mould-loft floor, and thereafter on the scrive boards alongside the furnace, where the shape of every frame can be obtained. A frame plan and board profile are drawn in the office, and the frames and reverse frames are ordered; similarly are the floor plates and beams. The frames generally consist of continuous bars, with a cross section like a right angle or some slight modification of same. These bars are supplied in long lengths from the steel works, and are punched, bent, and bevelled in the shipyard. The reverse frame is also an angle bar, but lighter in scantling than the frame, and it is similarly treated. The frames and reverse frame are riveted together up the ship's side, while across the bottom of the vessel their value as a girder is increased by being kept at some distance apart by a floor plate.

Drawings of the inner bottom plating, decks, and shell are made, as also the minor plans, such as casings, engine and boiler seatings, stringers, keelsons, and the small items in the construction of the vessel. The machinery drawings are made concurrently, and the materials ordered as soon after the receipt of the order as possible.

The Trades Employed

In the making of a ship almost every trade is employed. The most important is the one covered with the framing and plating structure, and it is called by the comprehensive name of "ironworkers", sometimes "ship fitters". The next in importance are the woodworkers, comprising shipwrights and joiners. Besides these there are electricians, plumbers, mechanical engineers, blacksmiths, tinsmiths, sheet-ironworkers, coppersmiths, patternmakers, riggers, blockmakers, sailmakers, upholsterers, cementers, galvanizers.

In addition to these principal divisions of the trades there are subdivisions. For instance, the ironworkers are subdivided into platers, frame benders, riveters with their holders-on, caulkers; and the mechanical engineers are divided into those who deal with ventilation, heating, watertight and air-tight doors, &c.

A shipbuilder, to be proficient, should have a working knowledge of all these trades. It is impossible that he should be proficient in them all, but he should know when the work in any of these is well or badly done. In his training he should work with the tools in the principal departments in steel and wood.

In the engineering department there are patternmakers; moulders of brass, iron, and steel; fitters, blacksmiths, coppersmiths, brass-finishers, and boilermakers, with several subdivisions.

The Berth

The preparation of the berth for building the ship is in itself an important piece of work. It is imperative that the ground be firm, so that when the vessel is built the enormous weight resting on a limited surface of ground will not cause sinkage. In most shipyards the berths are prepared by piling, cross tieing, or other means to give a firm foundation. Keel blocks are laid across the berth, and they consist of balks of timber about 15 in. square piled on top of each other and fastened together. They are built to a height of about 4 ft., and the series are spaced about 5 ft. apart along the line of the keel. It is essential that the height of the bottom of the ship above the ground should be such that workmen can pass freely underneath the ship, and can rivet, caulk, and carry on the other operations in the construction with sufficient room to swing their hammers.

Erection

The keel bars or plates are laid on top of the keel blocks, the tops of these blocks having been

aligned for this purpose. In fixing the declivity of the keel blocks it has to be borne in mind where the launching ways will come, and these latter must have the proper declivity to suit the launching of the ship. The keel plates or the plates adjoining the keel, if it is a bar keel, should be furnaced before being erected. In all cases they have to be set somewhat, punched, and their ends and edges planed fair. The spacing of the frames, which is generally at or about 2 ft. in mercantile work, is marked on these plates, and holes are punched in them to receive the frame bars. When the frame bars have been prepared and riveted to the floor plates and reverse frames, which operation is carried on generally at the head of the building berth, the frames are skidded along over the keel each to its proper position in the ship, and there erected. The operation of erecting these frames is carried out by the shipwrights, as is also the placing of the beams across connecting the tops of the frames.

As the keel plate is laid at an inclination to the horizontal, and as the framing is generally erected normal to the load waterline of the ship, it is necessary to erect the frames somewhat off the perpendicular. They must also be truly square across the keel. These processes are called respectively plumbing and horning.

In order to get the frames in their relative positions, strips of wood called ribbands, about 4 in. by 4 in., or more, are run along the outside of the frames, and firmly secured to each one. The whole is shored and stayed in its proper position. The stem and stern posts are erected and plumbed, shored, and stayed in a similar manner.

The shape of each bulkhead and the line of each bulkhead plate has been drawn down previously on a board, and the frames and plates fitted to each other. The bulkhead frames are put in place and the plates built on to them in the ship, these being then riveted and stiffened. They are afterwards caulked water-tight.

The shell plating should now be partially ready for erecting in place, it having been ordered from a model of the ship on which each plate is shown. These shell plates may be as large as 30 ft. by 5 ft. in a large modern vessel. They are sometimes as thick as $1\frac{1}{4}$ in., or they may be as thin as $\frac{1}{8}$ in. in a torpedo boat. Launches have been built with shell plates $\frac{1}{16}$ in. in thickness. The thickness of the shell plating varies with the size of the vessel, as the material forming the shell is largely contributory to the strength of the vessel considered as a girder, and the longer the girder is the stronger it must be. Each plate is prepared separately from a template applied on the ship's frames, the lines of the shell edges having been marked on same. The usual method of construction is to have one strake or line of plating extending from the stem to the stern applied close to the frame, and the strake of plating above and below it overlapping it on the edges. The first set of strakes are called inside strakes and the latter outside strakes. In order that these outside strakes should be stiffened by the framing of the ship, slip pieces are inserted between each frame and the shell in way of them. An alternative method of plating is to joggle the outside strakes and cause them to follow the frame. This method is not one to be recommended, because if the joggling is not carefully done there will be places where the two surfaces will not lie close together and sound riveting cannot be done. It has another objection in that a vessel will receive blows from a quay wall, or from another steamer lying alongside, on the riveted edges of the shell plating, and the water-tightness of these will be impaired.

A third method, and one which is increasing in favour, is to joggle or set the frames at each shell landing, so that the frame follows the outs and ins of the shell plating strake by strake. A special machine is required to joggle these frames, but it saves the fitting of slips and the weight of same. The inside strakes of plating are put on the ship first, the ribbands having been put where the outside strakes come; when the inside strakes are in place the ribbands can then be removed without the vessel changing shape, and the outside strakes of plating are put on, the shell plating being bolted to the frames at this stage. The riveting of the shell plates to the frames and to one another is then proceeded with, the rivets being put into plates and angles from inside the ship and laid up from the outside. In most of the work hand riveting is done, but some yards are introducing an almost universal use of pneumatic riveting hammers for this purpose. In the largest ships, where strakes of plating at the top and bottom of the shell are very thick and rivets consequently very heavy, up to $1\frac{1}{8}$ in. in diameter, these have been riveted by hydraulic power. To operate an hydraulic machine properly it is necessary that both arms can reach over the plate, and therefore its application is as yet limited; but the very best workmanship is done by the hydraulic riveter. The hydraulic riveting machine makes a snap- or cup-headed point, and these rivets are observable on large "liners".

Concurrently with the plating of the shell, and after the inner bottom has been plated, the deck plating is laid and riveted. The whole of the shell seams and butts are then caulked. The modern method of connecting the shell plates at the butts or joints connecting plates in a fore-and-aft direc-

tion is by overlapping the one plate over the other; the older method was by making the plates meet edge for edge and placing a butt strap behind them.

Any decks which are to be water-tight are caulked after riveting. The process of caulking steel is to stave part of the material in the edge of one plate inwards, and so swell it that it presses on the surface of the plate adjoining. This can be so finely done as to be absolutely water-tight or even oil-tight. The casings, seatings, and other internal steel work on the ship are likewise built up plate by plate and bar by bar, riveted, and made into one continuous whole. When all the steelwork is complete the wood decks are lined off and laid, and ceiling in holds is laid. This was contemplated at an early stage, and the holes through the beams and reverse frames, to receive respectively the wood decks and the ceiling, were punched. When the wood decks are laid they are bolted to the beams or steel deck as the case may be, and the bolt heads are covered with pieces of wood called dowels. The seams of the wood decks are caulked by the shipwrights with oakum or cotton thread as required. This process of caulking is to hammer the fibre well down between the seams with a special caulking chisel. As the caulking proceeds the laying of the decks follows. A special marine glue is heated and poured into the seams. In the older ships pitch was universally used for this purpose. Ultimately the top sides of the decks are planed and the surplus glue removed, leaving the wood decks as one sees them on a ship in service.

Pillars are fitted under every second beam, or more if local weights require supports, and they are fitted to the number of one, two, or three, depending on the span of the beams. These pillars are of round iron, 2 or 4 in. diameter, or the equivalent in tubes. In some ships, however, heavy built plate and angle pillars are substituted at a much wider spacing, and the framing is made heavier at the beam ends. All the compartments in the ship which may be intentionally filled with water at sea, such as the fore peak, after peak, trimming tanks, water-ballast tanks in the double bottom, and reserve feed tanks, are tested under a pressure head of water, and a careful examination is made to see that the sides of these places are in every way water-tight. They are re-tested until they are so, should any defects be found. In torpedo destroyers every compartment in the ship is water-tested, by filling them.

THE LAUNCH

Preparations are at this stage made for launching the vessel. Lines of block supports similar to the keel blocks are laid up and down each side of the vessel. They are distanced from each other about one-third of the vessel's breadth and equidistant from the centre line of the ship. On top of these blocks there are laid fore-and-aft planks called "standing ways". These are laid in exactly the same plane, one with the other, and at the required declivity for launching the vessel. These standing ways are secured in place and must on no account move. On top of them are laid similar planks called "sliding ways". The standing ways extend from the bow of the vessel to about the low-water level of the tide, and the sliding ways extend from near the bow of the vessel to near the stern of her. On top of the sliding ways there are built cradles up to the shell of the ship, the intention being to carry the ship on these sliding ways and the whole to move down the standing ways at the arranged time.

The declivity of the upper surface of the standing ways is arranged so that only the proper amount of the vessel's afterpart will be submerged when she goes off, as otherwise the vessel's afterpart would float up and bring a very severe stress on the extreme fore end of the cradle carrying her. On the other hand, care has to be taken lest too little of the afterpart of the vessel is submerged and so providing buoyancy, as in that case her stern would sink and the bow would rise out of the cradle before the vessel dropped or floated off the end of the ways.

When the sliding ways are turned in on the standing ways the surfaces of both sets of ways in contact are smeared with a mixture of tallow and soft soap to give lubrication. The standing ways are similarly lubricated over all the length which it is intended the sliding ways will traverse. The parts of the sliding ways are firmly joined together by fishplates or wire ropes. An arrangement of daggers or triggers is made connecting the sliding ways and the standing ways together so that no relative movement of these can take place. The breadth of the ways is generally arranged for the heaviest ships the yard constructs, and these ways may be as much as 3 or 4 ft. wide. They are made of pitch pine, or in some cases oak, and are used for one vessel after another.

Launches take place usually shortly before high water, and the weight of the vessel is transferred from the keel blocks and bilge blocks which have

supported her during construction on to the launching cradles, and through them on to the ways. These launching cradles consist of wedges and blocks of wood placed immediately over the sliding ways, and by tightening these wedges and removing the keel blocks and bilge blocks one by one, taking them out by alternate numbers, the transference of the weight is effected. The keel blocks, bilge blocks, shores, and everything holding the vessel having been removed, the daggers or triggers connecting the sliding and standing ways together are released, and the vessel by its own weight slides down the ways. As she moves, a christening ceremony is generally performed and the vessel receives her name. Sometimes the lady christening the vessel actually releases the triggers or daggers holding the vessel by cutting a cord or pressing an electric push, when mechanical contrivances are set in operation. Hydraulic rams are always arranged at the head of the sliding ways to give the vessel an initial push if she does not of her own accord start to move. The surface of the sliding ways, besides having a declivity, is given a camber or round along the vessel's length. This has the twofold function of graduating the speed of the ship and also of allowing of a slight sinkage without annulling the declivity. In open roadsteads the launched ship is allowed to run until her own resistance stops her or she is anchored, when she can be taken in charge by tugs and brought into a basin. In confined waterways, such as are met with opposite most shipyards in this country, the vessel has to be checked when afloat, and for this purpose chain or plate drags are attached to both sides of her, but sufficient slack is left to ensure that these drags do not come into operation until the vessel is afloat.

The stability of the vessel at launching should be investigated some time before the launch, to ensure that no disaster will occur. In order that the sliding ways may remain in their proper position on top of the standing ways edge strips or ribbands of wood are attached to the former. The vessel is moored alongside the works if possible, and the engines, boilers, and auxiliary machinery are lifted on board, the decks in the vicinity of these having been left loose for the purpose. When these are in the ship the decks are closed over, and the funnels and masts are lifted by the crane and placed on board, and the equipment of the ship is proceeded with. The building of the cabins and fitting of deck work is carried on, and the thousand-and-one things that go to make up the completed ship are brought to her and fitted.

It is advisable to align sights on the ship before launching, and after everything is on board, and to compare the sights to see if the vessel has in any way changed shape. When the vessel is completed she should be tested to ascertain the position of her centre of gravity; therefrom a knowledge of her relative stability as compared with other ships can be determined This is an essential consideration in first-class shipbuilding, as, with the total disappearance of some ships, the first question that is asked is regarding her qualities of stability. After being "inclined", to ascertain the position of the centre of gravity of the vessel in light trim, it is then customary that she should take in fuel and be prepared for all the trials of speed, &c., which follow.

TESTS AND TRIALS

During her construction those looking after her in the owners' interests should have seen that all the workmanship is good, that every place which is supposed to be water-tight is so, that each sidelight has been subjected to a stream of water from a hose and that no leakage has taken place. All the pumps should be tried in succession, both hand and steam, and the drainage of the ship is watched to see that no water is lying anywhere, which cannot find its way to the suctions. The winches and cargo gears should be tested at specified loads, and the cargo gear should be able to handle stated loads at specified speeds. A known deadweight cargo should be put on board the ship, and it should be ascertained that her total and mean draughts do not exceed those contracted for. The anchors should all be lowered in succession, heaved up and housed by the machinery for that purpose.

Speed trials should be conducted; for this purpose the vessel should be brought to specified draughts, forward and aft, and a careful note of the deadweight made. By deadweight is meant everything beyond the ship and her unconsumable stores. The vessel should be taken to a measured nautical mile and steamed at least once with and once against the tide, and the mean of these two speeds should be noted, with the corresponding horse-powers of the engines, revolutions of the shafts, boiler pressures, receiver pressures, and other details. This process should be performed at least with four distinct speeds, the highest of which should be the maximum speed the vessel can attain, in all cases the runs being in pairs

with and against the tide. From the information thus obtained diagrams of progressive speeds with corresponding horse-powers, revolutions, &c., can be constructed. These trials are known as "progressive-speed trials", and from the diagrams made the revolutions of the engines corresponding to the contract speed can be ascertained. The vessel should then start on a six or twelve hours continuous-speed trial, and maintain over that period the average revolutions per minute which correspond to the contract speed. During this time the coal used and the water put into the boilers should be measured. From the former a knowledge will be obtained of the coal required for the ship on service, due allowances being made for contingencies of ocean weather, and from the latter a measure is obtained of the loss of water in the system.

Manœuvring trials are frequently conducted on new vessels, and it is desirable to steam them full speed astern and obtain a measure of their speed in that direction. When doing this one should not put the helm suddenly over in either direction to a large angle. In order to test the steering gear and rudder stock it is a practice to steam a vessel astern at two-thirds the number of revolutions corresponding to full speed astern, and, when the ship has gathered way, to put the helm hard over to one side, and after some time throw it over to the other side. This is a severe test on the rudder stock, but one which it is quite likely to meet with on service. When steaming full speed ahead the vessel should describe circles to port and to starboard with the helm hard over. With twin-screw vessels manœuvres should also be made with one engine ahead and one astern to ascertain what radius the ship will turn at.

All the auxiliary machinery not tested when the ship was lying in the builders' fitting-out basin should be tested while the vessel is in open water at anchor. Electric-light trials of six hours' duration should be run, and insulation, governing, and other tests should be made on the system.

All small boats should be examined in detail for equipment, and they should be lowered and tested for tightness. In vessels where the small boats will be constantly used, the writer has deemed it advisable to have sail made on each of them in turn and has sailed them to ascertain that the sail area was suitable and that all cleats and fittings were in their proper places. In lowering boats, catting anchors, and working cargo winches, consideration should be made of the stiffness of the structure in the vicinity of these, and if it is not sufficiently strong it should be reinforced. Thereafter, the complete outfit of the ship should be checked over and signed for as being on board, after any items found short are supplied, and articles not up to the required standard have been replaced.

In warships, besides having speed trials of an exhaustive character, it is required that gun trials be carried out, and elaborate manœuvring, circling, and astern trials conducted.

Any other trials or conditions of the contract necessary for the requirements of certain trades must be made before the ship can be certified as being complete and satisfactory.

TRAINING OF THE SHIPBUILDER

Shipbuilding havi g now taken rank as a science it follows that the training of a shipbuilder must needs be more a matter of head than of hands. In the olden days a shipbuilder was a tradesman, but now besides having a knowledge of trades he must have a knowledge of the laws which govern construction and flotation. It is desirable that a shipbuilder should be well equipped with mathematics, because, if so, he can learn all the other sciences applicable to shipbuilding the more easily.

A usual training for shipbuilding is of five or six years' duration, the first half of it being spent with the iron and woodworkers, and the second half in the drawing office. A more liberal training, however, is as follows: The first year should be spent in the drawing office, where the young man can become familiar with the drawings of the various parts of a ship and see ships in course of construction. He learns the names of the various parts and generally becomes acquainted with a ship as such and not as she is known to the average passenger. At the end of one year in the drawing office he should attend for four winter sessions at one of the Universities where there are Chairs of Naval Architecture, and he can qualify and graduate in that subject. During each of the six months' summer vacations he should arrange to work the first two with the ironworkers and the second two with the woodworkers. During the sixth year he should be engaged in the drawing office, and at the end of that time he would have obtained a good knowledge of shipbuilding, and a degree. It is not always easy to arrange with a shipyard to grant an apprentice the privilege of six months' absence at a University, but the better-class firms are now encouraging it, and they allow the apprentice to reckon the six months'

training received at the University as part of his apprenticeship time.

Should it not be possible to arrange to have the time spent at a University counted as part of the apprenticeship, an additional year in the drawing office could be served. It is very much to the advantage of the young shipbuilder of the present day that he should undergo a systematic training such as is provided in a University. There are three chairs of Naval Architecture in Great Britain, namely, at Glasgow, Newcastle, and Liverpool Universities. A systematic course is also taught at the Royal Naval College, Greenwich. This is more in the interest of war shipbuilding than of merchant shipbuilding. It is attended by young men who have graduated from the Royal Dockyards, and, if successful in their studies at the Royal Naval College, they pass into the Royal Corps of Naval Constructors. The members of the Royal Corps of Naval Constructors are employed in designing the vessels of the British Navy and in supervising the construction of these ships. It is possible for a young man who has been trained in a mercantile yard or dockyard, on passing an entrance examination, to attend at Greenwich, and thereafter, if he passes out satisfactorily, to be enrolled in the Royal Corps of Naval Constructors. There is, however, a feeling that there is no assurance of receiving an appointment even although such a private student passes out in the first class.

In the training of a shipbuilder he receives courses of instruction in marine engineering, and whilst it does not make him usurp the place of the marine engineer who has made that work his life study, he is given a knowledge of the various engines and their actions.

A naval architect in making the design of a ship must be prepared to specify every part of her, including the propelling and other machinery. He must keep himself abreast of all the latest improvements in the shipbuilding and engineering world. Turbines, direct or geared, gas and oil engines, should be familiar to him, as also the latest development in high-tensile carbon or nickel steel, Adam reproductions in ship furniture, lascar latrines of the newest design, and the thousand-and-one innovations that are constantly occurring over the wide range which shipbuilding includes.